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Electrical Merchandising

The Business Magazine of the Electrical Trade

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Getting the Facts

IN THIS issue of *Electrical Merchandising* is presented the results of a survey establishing the average yearly kw.-hr. use in the homes of the United States and Canada. These figures afford a valuable basis of comparison for central station merchandisers and an index of appliance saturation important to the dealer, wholesaler and manufacturer.

The studies of the cost of doing business by dealer and central station made last year by *Electrical Merchandising* were widely used and made the subject of much comment. Further studies on this vitally important line are again being undertaken and results will be published within a few months.

Beginning in an early issue will be the first of a series of studies of time payment selling in the electrical field. This is a topic which is engaging the attention of bankers, trade associations, economists, manufacturers and the public. In the 1925 annual statement of the General Motors Corp., this comment is made on credit merchandising: "The importance of this whole subject from the standpoint of the commercial activity of the country, as well as from its credit structure, can hardly be overestimated." *Electrical Merchandising* by getting at the facts will contribute not only to straight thinking on this important question but to the profits and stability of the electrical trade.

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Milestones In Red Seal Progress

THIS month occurs the first anniversary of the first license under the Red Seal plan in the United States. License number one was granted by the Society for Electrical Development to the Syracuse Electric League on March 24, 1925.

Conceived as a continuous follow-through to the electric home in Toronto, Canada, by G. W. Austin, it quickly became an important and successful factor in the work of the Toronto Electric Service League.

The first published report of this activity bringing it to the attention of electrical men in the United States appeared in the frontispiece to *Electrical Merchandising* of January, 1924, reproduced here. The Society for Electrical Development developed the plan as a national activity and adopted and copyrighted the seal, in May, 1924.

Now, one year after the granting of the first license, it is a major activity of eighteen electrical leagues covering 676 communities and reaching a total population of 8,888,991.

4002 ELECTRICAL MERCHANDISING Vol. 21 No. 1

When Choosing a House in Toronto, the Public Looks for

The "Standard Electric Home" Sign

STANDARD ELECTRIC HOME

Toronto Electric Service League's

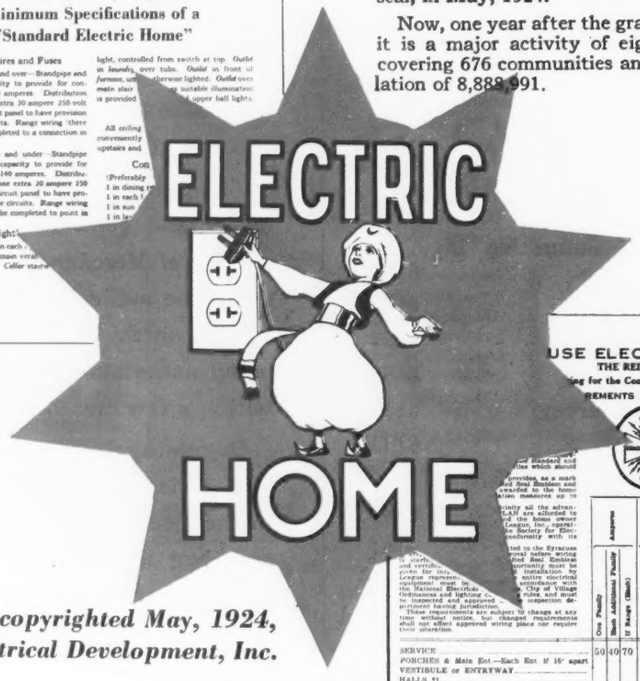
Minimum Specifications of a "Standard Electric Home"

Service Wires and Fuses

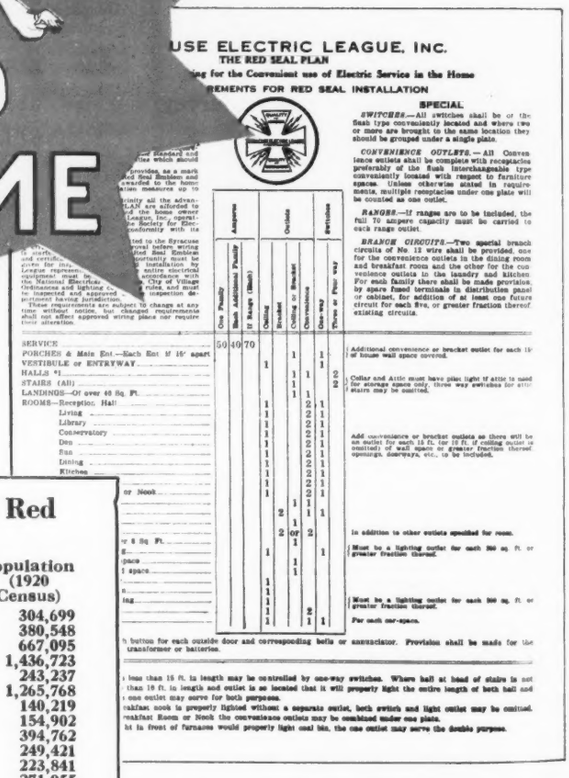
Houses 7 rooms and over—Standpipe and main switch capacity to provide for connected load of 180 amperes. Distribution box to have two extra 30 ampere 250 volt fuse blocks. Circuit panel to have provision for two spare circuits. Range wiring (three No. 6's) to be completed to a connection in kitchen.

Houses 6 rooms and under—Standpipe and main switch capacity to provide for connected load of 140 amperes. Distribution box to have one extra 30 ampere 250 volt fuse block. Circuit panel to have provision for two spare circuits. Range wiring (three No. 6's) to be completed to point in kitchen.

January, 1924



Red Seal adopted and copyrighted May, 1924, by the Society for Electrical Development, Inc.



USE ELECTRIC LEAGUE, INC.

THE RED SEAL PLAN

...ing for the Convenient use of Electric Service in the Home

...REMENTS FOR RED SEAL INSTALLATION

SPECIAL

SWITCHES.—All switches shall be of the flush type conveniently located and where two or more are brought to the same location they should be grouped under a single plate.

CONVENIENCE OUTLETS.—All Convenience outlets shall be complete with receptacles preferably of the flush interchangeable type conveniently located with respect to furniture spaces. Unless otherwise stated in requirements, multiple receptacles under one plate will be counted as one outlet.

RANGES.—If ranges are to be included, the full 70 ampere capacity must be carried to each range outlet.

BRANCH CIRCUITS.—Two special branch circuits of No. 12 wire shall be provided, one for the convenience outlets in the dining room and breakfast room and the other for the convenience outlets in the laundry and kitchen. For each family there shall be made provision, by spare fused terminals in distribution panel or cabinet, for addition of at least one future circuit for each five, or greater fraction thereof, existing circuits.

	Amperes	Outlets				Switches	
	One Family / Each Additional Family	If Range (Basic)	Ceiling	Bracket	Ceiling or Bracket	Convenience	One-way	Three or Four-way
SERVICE	50	40	70					
PORCHES & Main Ent.—Each Ent. If 15' apart					1		1	
VESTIBULE or ENTRYWAY				1			1	
HALLS *1						1	1	
STAIRS (All)						1	1	
LANDINGS—Of over 40 Sq. Ft.						1	1	
ROOMS—Reception, Hall			1			1	1	
Living			1			2	2	
Library			1			2	2	
Conservatory			1			2	2	
Den			1			2	2	
Fan			1			2	2	
Dining			1			2	2	
Kitchen			1			2	2	
			1			2	2	
			1			2	2	
or Nook					1	1	1	
		2	1			1	1	
				2	or 1	1	2	
or 6 Sq. Ft.				1		1		1
						1		
space			1					
1 space			1					
			1					
ing			1					
			1					2
			1					1

Additional convenience or bracket outlet for each 15' of house wall space covered.

Collar and Attic must have pilot light if attic is used for storage spaces only, three way switches for attic stairs may be omitted.

Add convenience or bracket outlets as there will be an outlet for each 15 ft. (or 15 ft. if ceiling outlet is omitted) of wall space or greater fraction thereof openings, doorways, etc., to be included.

In addition to other outlets specified for room.

Must be a lighting outlet for each 300 sq. ft. or greater fraction thereof.

Must be a lighting outlet for each 300 sq. ft. or greater fraction thereof.

For each one-space.

h button for each outside door and corresponding bells or annunciator. Provision shall be made for the transformer or batteries.

s less than 15 ft. in length may be controlled by one-way switches. Where hall at head of stairs is not than 10 ft. in length and outlet is so located that it will properly light the entire length of both hall and one outlet may serve for both purposes.

reakfast nook is properly lighted without a separate outlet, both switch and light outlet may be omitted. reakfast Room or Nook the convenience outlets may be combined under one plate.

ht in front of furnaces would properly light coal bin, the one outlet may serve the double purpose.

First License granted Syracuse Electric League, March 24, 1925

Summary of Communities in which the Red Seal Plan is being operated

League	Date of License	Communities 500 and over	Population (1920 Census)
Syracuse Electric League	3/24/25	33	304,699
Electrical League of Rochester	4/10/25	36	380,548
Electrical League of the Niagara Frontier	4/15/25	26	667,095
Electric League of Pittsburgh	5/ 7/25	169	1,436,723
The Electric Club of Louisville	5/16/25	5	243,237
Electrical Extension Bureau of Detroit	6/ 4/25	56	1,265,768
Hudson Valley Electrical League	7/20/25	24	140,219
Grand Rapids Electric Club	7/23/25	13	154,902
Electrical League of Minneapolis	8/10/25	10	394,762
Electrical League of St. Paul	8/11/25	6	249,421
Atlanta Electrical Association	8/14/25	10	223,841
Electrical League of Colorado	10/17/25	10	271,955
The Electric League of Tulsa	10/23/25	1	72,075
Memphis Electric League	11/ 4/25	3	163,997
Electrical League of Youngstown	11/ 4/25	8	162,899
California Electrical Bureau	11/24/25	236	2,498,886
Electric League of Northern Illinois	1/ 5/26	25	217,555
Muncie (Ind.) Electrical League	1/29/26	5	40,409
Total Communities to date		676	
Total population to date			8,888,991
Also Toronto			523,000
Grand total			9,411,991

Eighteen Leagues, 676 Communities, March, 1926

Electrical Merchandising
Volume 35 with Which Are Incorporated *Electrocraft* and *Lighting Journal* Number 3
March, 1926

Why Appliances Do Not Sell More Rapidly

An Answer in Present Housewiring Incompleteness

OF ALL the thousands of articles of merchandise sold in stores, electrical appliances and portable lamps stand in a class by themselves in one unique respect.

Electrical articles are the only ones which cannot be taken home and put to use by the purchaser, when, where, and as he pleases! For their operation, they require a source of electricity, conveniently at hand.

Other merchandise, — furniture, clothing, tableware—can be used and enjoyed without particular thought of preparation. But an electrical appliance or portable lamp is of course practically useless unless there is an outlet or socket to which it can be attached, all wired up and waiting.

How many times a week does the clerk in the average lamp department hear some woman say: "Yes, I would love to have that beautiful lamp. But I haven't any place to connect it."

And how many times is the same merchandising tragedy repeated with electric percolators, toasters and waffle irons—"because we haven't electricity at our dining-room table, and nobody wants ugly cords running down from the chandelier or across the room." The vacuum-cleaner, the washing machine, the ironer, the refrigerator and the range all pay tribute to this lack of adequate wiring in the American home.

SOME six or seven million new residence customers have been connected up in the United States since the close of the War. These houses have been "wired for electricity," so the layman says. Yet every electrical man knows that on the average these homes contain not more than one-quarter to one-half of the wiring equipment which their owners should have installed in justice to themselves and to their families. And so these householders are now poor prospects for extensive appliance sales, and will continue so until their pitifully incomplete wiring jobs are brought up to some fair standard of convenience.

The automobile industry long ago discovered that the sale of automobiles would be limited until "good roads" were more general for the cars to run on. So the automobile men went to work with a will to get good roads for the country. The result is apparent in the present staggering automobile volume.

WHAT "good roads" meant to automobile sales, adequate outlets means to appliance sales. The appliance manufacturer, jobber and dealer all have a vital interest in getting adequate wiring established. The Red Seal Plan is today setting a standard for such adequacy, which should be in evidence in a thousand American cities.

Without proper wiring, appliance sales are bound to be restricted. And just as good roads invite automobiling, so the presence of convenient outlets and switch control will stimulate appliance sales.

The appliance trade, we believe, will always be hampered until adequate wiring becomes general. Appliance men's own interests lie, therefore, in getting *more wiring per home,* in order to sell *more appliances per home.*

The housewiring program is not one from which any branch of the electrical business can stand aloof. Instead, this matter of adequate residence wiring insistently demands the present and continued efforts of every electrical group and every electrical man.

Average Residence Customer Uses 365 Kw.-hr. Yearly—Annual Bill, $27.89

"Electrical Merchandising" Completes First Survey Ever Made of Residence Electricity Consumption in American Cities—"Average Kw.-hr. Use" as a Measure of Past Merchandising Activities

THERE is probably no better index to the total past sales of electrical appliances in a given community, than the average kilowatt-hour consumption of the local residence customers of the electric-lighting company.

If the job of merchandising the devices has been done effectively, and proper educational publicity has been employed to secure the continued use of the appliances following their purchase, then it is certain that these appliances will show their effect on the individual residence electricity meters of the community, in increased kilowatt-hour consumption, with an attendant rise in the monthly and annual bills.

To compare such average residence consumption figures for several hundred representative American cities, *Electrical Merchandising* requested central-station commercial managers in cities large and small, in all parts of the country, to supply us with the local figures for average residence kilowatt-hours per annum, and the average effective residence rate. From these figures, in each case, the average annual residence bill could be at once computed.

Returns Compiled by Sections and Size

The replies thus received have been carefully tabulated beginning on the page opposite. The tables are arranged by geographical sections, with the cities in each such section appearing in the order of the number of their residence customers.

Summarizing the figures thus collected, it appears that the average electricity consumption among the residence customers of the cities reporting, is about 365 kw.-hr. per year, or a little over 30 kw.-hr. per month.

For this service, the aforesaid Average Residence Customer pays his lighting company, $27.89 a year, or about $2.32 a month.

These figures indicate an average residence rate of 7.64 cents per kw.-hr. for the cities reporting in the accompanying tabulation. It will be noted that this is the mean effective rate, that is, the rate prevailing for the total residence consumption noted. In the case of step rates, the mean effective rate will usually lie between the two first steps.

How the Average American Family Spends Its Money

	Per Year
Automobiles and supplies	$420
Women's clothing	236
Tobacco	100
Furniture	87
Men's clothing	85
Theatres and movies	60
Shoes	50
Phonographs (prior to 1923)	48
Jewelry	42
Radio (1925)	25
Electrical Appliances	*10.88
Electricity for Home Uses	27.89

*See "Electrical Merchandising" September, 1925.

Comparison of the averages for the various geographical sections, shows that, as was to be expected, the Pacific Coast cities with an average residential consumption of 457 kw.-hr., are far ahead of the Atlantic Coast cities, which average only 346 kw.-hr. The effect of the Pacific Coast's electric-range and electric water-heating load is strongly apparent in these averages.

Electric Range Builds High Consumption

The electric range as a builder of high kw.-hr. consumption figures is also in evidence in the instances of a number of cities. In Buffalo, for example, where there is considerable electric-cooking, the average residence consumption reaches 672 kw.-hr. Spokane's figure of 547 kw.-hr., and Portland's 590 kw.-hr. are undoubtedly due to the same cause. Another community with a large electric-range development is Colfax, Wash., where the average consumption measures 866 kw.-hr. The effect of widespread range development is also apparent in the Ontario returns.

Greenwich, Conn., a very prosperous suburb of New York City, sometimes dubbed "The richest village in the World," proclaims its comfortable circumstances with an annual consumption of 573 kw.-hr., at an average rate of 9.3 cents, making the average Greenwicher's bill $53.44 a year. A corresponding development is observable in the similar elite Chicago suburb of Evanston, Ill., where the consumption runs 516 kw.-hr., and the annual bill $46.44.

One might have predicted that the

thrifty New Englanders would consume less electricity per electrified dwelling than the other Atlantic Coast consumers. Note the figures: New England, 305 kw.-hr., Middle Atlantic, 372; and South Atlantic, 361. In the matter of the annual bills paid, however, observe the close agreement between New England's $27.09 and the middle coast's $26.95, while rates are again higher in the southland.

The Middle West runs along neck-and-neck with the Atlantic states, excluding New England, both kw.hr. consumption and annual bills being about the same, until the West South Central States are reached. Here rates are higher, and average consumption lower, so that Mr. Average Consumer pays $33.80 for his quota of 347 kw.-hr.

Large Cities Enjoy Largest Average Consumption

In the Mountain States, the consumption figures do not reach very high values. Denver at 350 kw.-hr., compares with Brooklyn's 350 kw.-hr., back east. And Salt Lake City and Butte correspond with the 384-kw.-hr. consumption of Rochester, N. Y.

Merchandising Policy and Average Residence Consumption

Average residence consumption in 63 cities where central stations merchandise	**369 Kw.-hr.**
Average residence consumption in 19 cities where central stations sell no appliances	**340 Kw.-hr.**

Recapitulating the figures by sizes of the cities participating, it will be noted that those communities with 100,000 customers or more, show both the largest annual consumption, on the average, 441 kw.-hr., and the smallest average yearly bill, $26.72, indicating an average rate of about six cents.

Cities having between 100,000 and 25,000 customers, have an average consumption of 368 kw.-hr., with bill of $28.21. Those between 10,000 and 25,000 consume 346 kw.-hr., at $27.01. And the smallest cities reporting, those with 10,000 customers and less, average 356 kw.-hr., and $29.22 bill.

From the foregoing, it appears that the very large cities exert considerable influence in pulling up the average. Some of the high ones are Chicago, 500 kw.-hr.; Cleveland, 500 kw.-hr.; Buffalo, 672 kw.-hr; Detroit, 470 kw.-hr., and Baltimore, 425 kw.-hr.

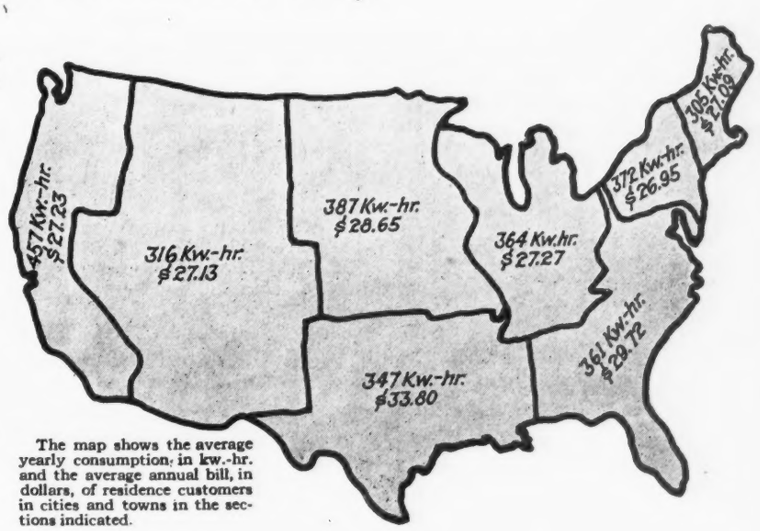
Should a Central Station Merchandise?

After the figures opposite had been collected, it was felt that they might have some testimony to render in the classical controversy as to whether a central-station company should or should not merchandise appliances. A preliminary glance showed what while Cleveland, with a non-merchandising policy, had built up an average residence consumption of 500 kw.-hr. per year, the figure was practically duplicated for Chicago, where an intensive merchandising effort has been continuously carried on. Again, Binghamton, N.Y., can be compared with Wilkes-Barre, Pa., two cities with opposite policies producing residence

How Much Electricity Does the Average Residence Use Yearly?

COMPILED by sizes of communities the figures for the U. S. as a whole, average:

Cities with 100,000 or More Residence Customers	**441 Kw.-hr. $26.72**
Cities with 25,000 to 100,000 Residence Customers	**368 Kw.-hr. $28.21**
Cities with 10,000 to 25,000 Residence Customers	**346 Kw.-hr. $27.01**
Cities with 10,000 or less Residence Customers	**356 Kw.-hr. $29.22**



The map shows the average yearly consumption, in kw.-hr. and the average annual bill, in dollars, of residence customers in cities and towns in the sections indicated.

Grand Average for U. S. Cities

Average yearly residence consumption	*365 kw.-hr.*
Average yearly residence bill	*$27.89*
Average residence rate	*7.64 cents*

consumptions of 317 to 319 kw.-hr.

It was then determined to strike an average for all of the companies cited in the tables known to be merchandising appliances, and to compare this with a similar average of non-merchandising companies.

The sixty-three companies definitely known to have a policy of operating their own electric shops and aggressively engaging in merchandising, show an average residence consumption of 369 kw.-hr. The nineteen companies definitely known to sell no appliances, leaving this merchandising activity to electrical dealers and other outlets in their communities, show an average residence consumption of 340 kw.-hr. Here then is the first actual comparison that has been made in terms of results as measured on the meters.

While the difference between 369 kw.-hr., and 340 kw.-hr., amounts to only about 8 per cent, advocates of a merchandising policy will see in these figures suficient support for their beliefs. On the other hand, advocates of the non-merchandising policy will find an explanation in the fact that central-stations which actively merchandise are also usually active in load-building promotion,

Yearly Average Kw.-hr. Use by Residence

New England Section

Towns	Population	Number of Residence Customers	Average Yearly Consumption In Kw.-Hr.	Average Residence Rate In Cents	Average Yearly Residence Bill
Boston, Mass.	1,495,803	150,000	351	9.5	$33.31
Providence, R. I.	298,725	75,600	292	8	23.36
Waterbury, Conn.	98,411	54,487	287	8.6	24.91
Hartford, Conn.	175,362	49,532	355	7.5	26.62
New Britain, Conn.	64,867	38,107	269	8.7	23.63
Springfield, Mass.	159,189	33,612	324	8.5	27.54
Fall River, Mass.	120,912	24,020	227	9	20.43
Brockton, Mass.	69,633	22,273	291	8	23.28
Pawtucket, R. I.	93,484	20,678	250	10	25.00
Lowell, Mass.	115,089	17,723	292	9	26.28
Manchester, N. H.	81,383	15,363	225	10	22.50
Norwalk, Conn.	29,015	15,342	337	9.1	30.89
Greenwich, Conn.	24,163	12,653	573	9.3	53.44
Biddeford, Me.	18,341	.....	195	9.3	18.13
Averages			305		$27.09

Middle Atlantic Section

New York City, Manhattan	2,300,000	150,000	432	7.3	$31.50
New York City, Brooklyn	2,156,687	400,000	350	8	28.00
New York City, Bronx	900,000	.....	235	12	28.20
Pittsburgh, Pa.	670,935	152,366	500	5.5	27.50
Buffalo, N. Y.	555,850	120,000	672	3.7	24.86
Newark, N. J.	513,634	75,205	309	9	27.81
Rochester, N. Y.	318,892	58,280	384	8	30.72
Scranton, Pa.	196,241	43,709	243	10	24.30
Syracuse, N. Y.	184,511	42,722	300	7.5	22.50
Altoona, Pa	64,458	33,529	436	7	30.52
Trenton, N. J.	127,390	32,504	420	8.5	37.50
Schenectady, N. Y.	98,773	28,900	317	8.6	27.26
Lancaster, Pa.	55,285	28,754	260	10	26.00
Utica, N. Y.	103,457	25,478	282.	8.5	23.97
Bayonne, N. J.	84,398	24,307	336	8.7	29.23
Harrison, Pa.	81,129	22,984	327	7.1	23.21
Binghamton, N. Y.	73,416	18,758	380	8.6	32.68
Wilkes Barre, Pa.	93,268	17,931	319	6.9	22.01
Yonkers, N. Y.	107,520	16,501	384	11	42.14
Elmira, N. Y.	48,354	14,299	325	7.5	24.37
Niagara Falls, N. Y.	58,082	13,854	540	4	21.60
New Castle, Pa.	48,058	11,141	436	5.7	24.85
Gloversville, N. Y.	22,590	10,121	250	9	22.50
Sharon, Pa.	23,793	7,398	470	5.7	26.79
Jamestown, N. Y.	41,664	6,426	450	5	22.50
Auburn, N. Y.	36,742	5,527	240	10	24.00
Averages			372		$26.95

South Atlantic Section

Baltimore, Md.	773,580	134,794	425	7	$29.75
Richmond, Va.	181,044	68,512	420	9	37.80
Norfolk, Va.	159,089	63,241	360	9	32.40
Birmingham, Ala.	195,901	36,157	425	8	34.00
Atlanta, Ga.	222,963	34,960	410	8.2	33.62
Wheeling, W. Va.	56,208	16,316	350	8	28.00
Wilmington, Del.	117,728	14,532	324	9.6	31.10
Columbia, S. C.	39,688	9,856	280	8.3	23.24
Winston-Salem, N. C.	58,230	8,476	315	7.4	23.31
Cumberland, Md.	32,361	7,912	300	8	24.00
Averages			361		$29.72

East Central Section

Chicago, Ill.	2,942,939	630,328	408	6.3	$25.70
Detroit, Mich.	1,225,000	372,045	470	5.3	24.90
Cleveland, Ohio	993,307	200,000	500	5.1	25.50
Milwaukee, Wis.	500,899	144,978	408	6.3	25.70
Cincinnati, Ohio	434,517	92,000	313	....	.....

while certain inert utilities which do not merchandise also do very little to promote residence business locally.

Certain it is, from the tables, that cities like Cleveland (500 kw.-hr.) and New York City (432 kw.-hr.) which, while not merchandising, have an energetic policy of co-operating with dealers and stimulating the business generally, can by this means, increase consumption.

A glance along the columns in the tables must reveal to even the casual observer, the fact that the annual residence bills run surprisingly uniform, despite a wide variety of conditions of geographical location or size of city. Practically all of the bills reported fall between the limits of $23 and $30, although there are a few (to which attention has already been called) well outside.

The variations in average residence consumption and in average rates appear to be much greater than the range in annual bills. Indeed the annual-bill figure, the product of the other two, rather approaches a constant within the limits above mentioned. Thus it would appear that while rates may be cut, resulting increase in consumption is enough to put the customer's annual

Customers in Representative Cities

East Central Section—Continued

Towns	Poulation	Number of Residence Customers	Average Yearly Consumption In Kw.-Hr.	Average Residence Rate In Cents	Average Yearly Residence Bill
Indianapolis, Ind.	342,718	71,873	336	7	$23.52
Toledo, Ohio.	269,338	61,695	370	7	25.90
Dayton, Ohio.	165,530	60,259	320	7.8	24.96
Columbus, Ohio.	261,082	44,357	408	7	28.56
South Bend, Ind.	.104,000	36,000	350	8	28.00
Youngstown, Ohio.	150,436	35,221	505	5.7	28.79
Evanston, Ill.	41,465	27,560	516	9	46.44
Canton, Ohio	99,248	21,264	420	7.3	30.66
Oak Park, Ill.	47,217	18,426	474	8.9	42.19
Springfield, Ohio.	61,833	18,186	302	10.1	30.50
Joliet, Ill.	39,801	17,385	324	9.1	29.48
Rockford, Ill.	72,419	16,173	328	5.2	17.06
Jackson, Mich.	63,000	15,000	303	7.8	23.63
Waukegan, Ill.	20,364	13,446	329	9	29.61
East St. Louis, Ill.	69,729	12.861	323	6.5	21.00
Madison, Wis.	42,519	12,572	424	5	21.20
Lima, Ohio.	44,757	12,000	300	8	24.00
Kokomo, Ind	34,565	11,325	298	8	23.73
Muncie, Ind.	40,321	9,745	333	7.4	24.64
Warren, Ohio.	37,905	8,886	384	6.9	26.50
Lorain, Ohio.	40,527	8,098	416	7.6	31.62
Kankakee, Ill.	17,900	8,037	278	9.2	$25.58
Lexington, Ky.	43,673	7,573	353	8.5	30.00
La Fayette, Ind.	23,316	6,987	300	7	21.00
Johnson City, Tenn.	13,664	4,770	288	9.5	27.36
Salem, Ohio.	10,795	2,630	343	7.5	25.73
Chicago Heights, Ill.	21,221	.....	304	9	27.36
Berwyn, Ill.	17,144	.....	339	9.2	31.19
Cicero, Ill.	.....	.....	306	9.1	27.85
Averages.			364		$27.27

West North Central Section

St. Louis, Mo.	803,853	143,360	424	5.1	$21.62
Minneapolis, Minn.	380,582	102,896	422	7	28.54
St. Paul, Minn.	241,291	46,579	315	9	28.35
St. Joseph, Mo.	78,232	19,422	380	7.2	27.36
Lincoln, Neb.	60,000	13,978	400	4.3	17.20
Fargo, N. D	22,841	5,864	368	....	.....
Fort Dodge, Iowa	19,635	5,040	240	11.5	27.60
Minot, N. D	11,866	2,680	275	10.5	28.88
Columbia, Mo.	10,546	2,509	662	7.5	49.65
Averages.			387		$28.65

West South Central Section

San Antonio, Texas.	184,727	34,394	230	8.3	$19.09
Fort Worth, Texas.	143,821	25,790	370	7.3	27.00
Tulsa, Okla.	102,868	19,837	300	10	30.00
Pine Bluff, Ark.	20,817	10,671	312	13.5	42.12
Beaumont, Texas.	46,841	8,470	459	10	45.90
Okmulgee, Okla.	22,539	7,138	360	9	32.40
Port Arthur, Texas.	28,508	6,273	397	10.1	40.10
Averages.			347		$33.80

Mountain Section

Salt Lake City, Utah.	126,241	78,570	382	8.1	$30.94
Denver, Colo.	272,031	63,937	350	9	31.50
Pueblo, Colo.	43,519	18,505	325	7.4	24.05
Butte, Mont.	42,409	17,405	382	6	22.93
Tucson, Ariz.	24,961	5,220	180	12	21.60
Albuquerque, New Mex.	16,648	4,950	276	11.5	31.74
Averages.			316		$27.13

bill back to the same average figure.

Take the figures for Brooklyn, N. Y., where an 8-cent rate with an annual consumption of 350 kw.-hr., produces an annual bill of $28. Compare this with the Buffalo situation, where a 4-cent rate produces 672 kw.-hr., and an average bill of $26.88. Half the rate, double the consumption, and about the same bill.

Or again, compare Manchester, N. H., with 225 kw.-hr., at 10 cents, producing an annual bill of $22.50; with Jamestown, N. Y., whose 5-cent rate develops 450 kw.-hr. and the same $22.50 annual bill.

Contrary to the hypothesis of Henry Ford and other industrialists, that a decreased price opens up a much greater market and volume, the preceding figures on rates and residential consumption do not make it apparent that a low rate alone is the controlling figure in developing an electrical household load. Undoubtedly more important is active energetic selling of the electrical idea.

Rates as they are, would appear low enough in proportion to other living costs, when measured by the low electricity bills they produce.

An average family of five in an 8-room house completely equipped with electric range, refrigerator and all other electrical appliances will consume 4,500 kw.-hr. annually. This consumption can be taken as the top limit of possibilities well within reason, by which to contrast present average residence consumptions of 250 to 500 kw.-hr. per year.

Average Residence Kw.-hr. Use, concluded

Towns	Population	Number of Residence Customers	Average Yearly Consumption In Kw.-Hr.	Average Residence Rate In Cents	Average Yearly Residence Bill
Pacific Section					
Los Angeles, Calif.	674,641	300,000	360	7	$25.20
Seattle, Wash.	315,685	77,000	400	6	24.00
Portland, Ore.	273,621	57,580	590	4.6	29.04
Fresno, Calif.	300,000	51,058	471	5.9	27.79
Spokane, Wash.	104,573	41,930	547	4.7	25.70
San Diego, Calif.	146,014	37,191	228	8	18.24
Long Beach, Calif.	69,214	35,642	511	6.5	33.22
Pasadena, Calif.	53,388	22,542	372	4.6	17.11
Sacramento, Calif.	69,950	20,329	360	7.3	26.28
Stockton, Calif.	68,000	19,050	324	7	22.68
Colfax, Wash.	3,500	603	866	5.8	50.23
Averages			457		$27.23
Canada					
Vancouver, B. C.	117,217	.....	450	4.4	$19.80
Ottawa, Ont.	107,843	.....	1,680	1.1	18.48
Winnipeg, Manitoba, Can.	179,087	21,260	1,253	1.2	15.04
New Brunswick, Can.	387,876	.....	350	2.5	8.75
Quebec, Can.	2,361,199	23,220	337	....	.....
Barrie, Ont.	6,936	1,645	1,056	1.6	16.80
Brampton, Ont.	.....	1,168	1,056	1.7	17.76
Brantford, Ont.	29,440	5,337	1,236	1.6	19.32
Chatham, Ont.	13,256	3,517	768	2.1	15.84
Collingwood, Ont.	5,882	1,273	732	2.1	15.24
Etobicoke Twp., Ont.	.....	3,051	408	4.0	16.56
Ford City, Ont.	.....	1,670	1,224	2.0	25.08
Galt, Ont.	13,216	3,289	1,500	1.7	26.04
Goderich, Ont.	4,107	1,181	444	3.4	15.00
Guelph, Ont.	18,128	4,332	826	2.0	16.32
Hamilton, Ont.	114,151	24,556	996	1.7	15.84
Ingersoll, Ont.	.....	1,261	1,032	1.8	19.08
Kingston, Ont.	21,753	4,226	516	3.6	18.36
Kitchener, Ont.	21,763	4,895	1,368	1.5	20.88
London, Ont.	60,959	14,957	1,140	1.6	18.60
Midland, Ont.	7,016	1,385	852	1.8	15.60
Mimico, Ont.	.....	1,308	1,392	1.6	22.56
Niagara Falls, Ont.	.....	3,499	2,038	1.4	27.48
Ottawa, Ont.	107,843	11,022	1,668	1.1	18.24
Owen Sound, Ont.	12,190	2,548	636	2.1	13.68
Peterboro, Ont.	20,994	5,266	612	2.6	15.72
Port Arthur, Ont.	14,886	3,389	1,248	1.6	20.04
Preston, Ont.	.....	1,295	1,140	2.0	23.04
St. Catharines, Ont.	19,881	4,851	1,140	1.6	18.84
St. Thomas, Ont.	16,026	3,747	960	1.7	16.56
Sandwich, Ont.	.....	1,596	....	....	.....
Sarnia, Ont.	14,877	4,176	708	2.6	18.48
Scarboro Twp., Ont.	.....	2,549	732	2.7	19.92
Smiths Falls, Ont.	6,790	1,393	492	4.3	21.12
Stratford, Ont.	16,094	4,036	1,620	2.0	32.16
Thorold, Ont.	.....	1,086	660	2.3	15.00
Toronto, Ont.	521,893	110,169	972	1.9	18.36
Toronto Twp., Ont.	.....	1,057	....	....	.....
Walkerville, Ont.	7,059	1,885	1,956	1.8	34.92
Waterloo, Ont.	2,063	1,379	1,392	1.6	21.72
Welland, Ont.	8,654	1,918	1,236	1.4	17.36
Weston, Ont.	.....	1,474	996	1.6	15.83
Windsor, Ont.	3,591	11,263	1,500	1.9	27.84
Woodstock, Ont.	3,377	2,409	1,224	1.6	20.16
Averages			1,013		$19.30

Three Profits in Radio for Central Station

A Merchandising Profit—An Increase in Residential Kw.-hr.—A Leader That Helps Sell Appliances

IT IS common practice in department store merchandising to feature certain items as "leaders," offering a special sale on this material so as to bring people into the store. Radio, because of its natural appeal to the buying public, is coming to be recognized as a "leader" in itself without the need of price reductions and as such is being adopted by many stores which would not normally think of handling material of this nature.

The department store, the furniture store and the hardware store have long recognized the value of radio for this purpose and many have taken up this field so seriously that their departments rank well up toward the forefront in merchandising practice. Strangely enough, the power company commercial department has been one of the last to take up radio. Among those companies which have realized its value as an article for central station handling and have featured it in store display and in advertising, the British Columbia Electric Railway Company, Vancouver, B. C., stands among the pioneers.

"We carry radio and feature it as part of our merchandising stock," says E. E. Walker, sales engineer of that company, "because we cannot afford not to. The public is interested in radio and a portion of that interest we feel should be directed toward our company. We find that it brings customers to our sales rooms who would not otherwise call. Furthermore we feel that the radio has come to be a current consuming device and we look forward to the time when all radio sets will be operated from the power company's line."

The increased use of electric light when a radio set keeps the family at home of an evening is another element which makes this field an attractive one to the central station merchandising department. The British Columbia company has found this an important factor in increasing monthly light bills, an item which is not to be despised in view of the number of radio owners.

The radio department, therefore, occupies a conspicuous section adjacent to the entrance of the main salesroom. The department has purposely been arranged in such a way as to isolate it from the other floor space, tables and counters being so placed as virtually to wall in the section.

Service Is Special Feature

A special feature is made of servicing, much being said of the company's name and reputation which is behind all goods sold. Sets are demonstrated in the store and in the home and no effort is spared to see that the new customer is satisfied with the purchase made. Terms are generous and do much to increase sales.

As a result of the extensive advertising campaign and the growing reputation of the company's department in the radio field, over three hundred sets were sold during the first six months, which incidentally included the summer period when sales activities are not expected to be at their height.

Experience with the radio department has shown that it can justify itself on the basis of the merchandising profit which it has shown from the start.

Further than this, moreover, it means increased light bills and the increased use of current for the operation of the radio equipment itself, both important items to the power company.

Most important of all, it brings people into the store, serving as a "leader" or special inducement, making customers of those who might otherwise remain strangers. It gives people what they want and so makes them more friendly toward the store and the company which sold them. It offers numerous opportunities for small contacts between the power company and the public in the way of service and makes for better and more friendly public relations.

Leaders in department store merchandising are usually placed on the main aisle of the first floor—and the radio department of the British Columbia Electric Railway Company of Vancouver on the same theory has been located adjacent to the main entrance of the sales room.

Merchandising—The Opportunity and the Responsibility

By JOHN F. GILCHRIST*
Vice-President, Commonwealth Edison Company

THE thought which bears in on me most insistently is that the place where we many find ourselves commercially in 1930 is very largely a question of the extent to which we want to go ahead.

There are, I venture to say, at least two schools of thought in every utility today. One group believes that the acquiring of business should be pushed ahead vigorously; the other is content to let it come with the self asserted demand of the people, saving the cost of publicity and sales. If we grant that this mental attitude is a factor in our development, let us consider the influences which will govern the state of mind of the operator.

The conservatism of age will be one factor; the electrical industry is old enough so that the men in charge of many of the properties are no longer young. *The most impelling consideration probably will be the ability to make a fair return on money,* taking into account the ease with which the principal may be secured and the time required for the manufacture of plant materials and the installation of them. Organizations are developed to produce a certain amount, and there are always influences in every organization against trying to pile up too much new business in a year.

But the greatest influence should be our responsibility in connection with the fact that the age of electricity is a new era on the earth.

Already our product is entering into the lines of the people in a way which is enabling them to live better and longer than human beings have ever lived. We should inform the public to the point of forcing our attention upon them as to the advantages to be gained from our service, and then to supply that demand at the earliest possible moment,

whatever its size may be. If proper publicity is given, and if the resultant demand is taken care of properly and efficiently, we will see a commercial development of our business at a rate greatly in excess of anything which has prevailed up to this time.

Improve the Load Factor

But there are other influences besides those mentioned. For instance, we are beginning to feel the proddings of necessity—that stern old mother of invention—as a result of a condition which has been growing upon us for several years in a very insidious way. I refer to the high cost of plant which has prevailed for seven or eight years, a respectable percentage of the lifetime of our business and during a period of great growth. Perhaps 70 per cent of our investment has come in at the high post-war prices until our complacency in relation to the diminishing number of years in which we turn our investment has already been rudely shocked by indications that there has been a sharp turn and the trend is upward.

Thus the companies that were turning their capital in three and three and one-half years are now, as to their entire capital, turning it in four, four and one-half and five years, and, as to the increase in capital of the last year or two, compared with the increase in earnings of the same period, they are turning it once in five or six years.

In the long run there are probably four principal methods of meeting this situation. I name them in the order of their practicability:

1. Lower operating costs.
2. More kilowatt-hours per kilowatt of plant capacity.
3. Reduced cost of plant per kilowatt.
4. Higher price for the product.

The last of these is not to be thought of. On the contrary, I hope and believe we shall find ways of reducing the price of electricity much further. Reducing the cost of plant is dependent on world conditions. The first and second items are to a great extent within our own control; and it is to the second one—putting out more kilowatt-hours per kilowatt of plant capacity; in other words, improving the load factor—to which we should direct our most vigorous attention. The effort to do this will, I think, prove to be one of the causes which will greatly effect the commercial growth of the industry in the immediate future.

While the improvement in sales organizations and the caliber of men essential in developing ideas for the use of off-peak service and for acquiring the load will result in the business with has been normal in past years being obtained in greater

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*From a paper read before the American Institute of Electrical Engineers, New York, Jan. 29, 1926. At this meeting the general subject was the development of the electrical industry in the decade 1920-1930.

quantities as a byproduct, the direct results from campaigning for off-peak business will be added to the natural growth and should result in a sharp upturn in the curve of annual kilowatt-hour output.

A Vigorous Selling Policy Will Be Necessary

During the five years through which we have just passed, business has come to the central stations at times more rapidly than they could provide plant to take care of it, and only recently have even the far-sighted ones been preparing for the time which will soon come when a very much more vigorous policy in the matter of securing new business will be necessary in order that business, of the kind and in the volume necessary to support new plant at present prices, may be obtained.

"IN all districts where a vigorous policy of informing the people as to what electricity will do for them has been carried on, the increase in consumption of kilowatt-hours per meter has been very rapid."

Some of us note with uneasiness that in the matter of the number of buildings served in the communities we are reaching the saturation point. To a great extent the extension of our number of customers is merely the ground-work of the wider distribution of electricity later on. In all districts where a vigorous policy of informing the people as to what electricity will do for them has been carried on, the increase in consumption of kilowatt-hour per meter has been very rapid.

I am discussing particularly the kind of customers where electricity is becoming almost as fundamental a necessity as food and clothing—the kind of business which is so valuable to the power companies because of its stability and aggregate volume.

Great progress will be made in the greater uses of industrial power of all kinds, but the growth of the use by the mass of small customers is of the most significance in studying the future of our industry.

At first, both in business and in the home, electricity was looked on purely as an expense—as one of those things where the amount of the cost had no connection whatever with the productiveness of business on the one hand or the fuller life of the home on the other. Gradually that situation has been changed. The wider use of energy for industrial purposes, for advertising and for the reduction or displacement of domestic labor is accountable for this change of attitude.

Notwithstanding the very much more liberal use of electricity, its cost is a trifling percentage, generally speaking, of the expenses or costs of the institution, factory, store or home in which it is used. Let us take the cost of electricity in the average city home as $25 a year. Probably the average income for each home would be in the neighborhood of $2,000 a year.

I do not mean the average income per individual worker, but the average income of the worker or workers who support each home. This would mean one and one-quarter per cent for electricity.

When we contemplate the varied uses of electricity as being conducive to the more satisfactory and more economical preparation of food, the conservation of time, permitting of more time for rest, recreation and self-improvement, the greater conservation of health through the regulation of heat and ventilation, the comfort and satisfaction, which is the conservator of nerve force and generally means greater earning capacity, is it not conceivable that the home, vitalized and made more livable by the use of electricity, may justify, from the standpoint of economy and result, the expenditure of not only 1¼, but 2½ or 5, or even 10 per cent of the family income.

Lighting Possibilities Are Great

This possibility gives us an opportunity for growth and development quite equal to the opportunity afforded us by the chance to extend our lines over wider areas and take on more connections.

It is easy to conceive that properly directed information should result in an increased use of energy to the extent of say 10 per cent per annum. If this increase prevails generally through the whole body of the customers, it would result in a normal and healthy increase in the output of electricity, although the increase in the number of customers fell off to a point directly comparable with the growth of the community.

Much of this growth will be due to higher standards of illumination. We are far from having reached the standard of illumination which will ultimately prevail everywhere.

"THE jobber and dealer I think, will surely become more rather than less of a factor. The basis of sales, particularly of appliances, is on a much better plane than it was a few years ago. Margins to cover the cost of sales have been widened very radically, and we will, I believe, see a great selling force of people other than the utilities devoting their time and energies to the placing of all kinds of appliances on the power companies' lines for pecuniary reasons of their own."

Should Sales Forces Be Reorganized?

There will be factors in the situation in future, the effect of which is somewhat unknown, but which should mean a more rapid building up of business. For instances, in most companies there has not been much attention paid to strengthening of sales organizations since the early years of the World War. Now, however, many of the companies find themselves caught up in the matter of capacity and anxious to get more business.

This will require the reorganizing of sales forces in many of the companies. There are many very able commercial men in the electric utility, but the making of sales of electricity as compared with the selling of many other commodities has always been a relatively easy job, and the result is that as a class the selling organizations of the utilities do not, in my judgment, contain as large a percentage of men of ability as is the case with the average sales organizations over the country.

In the sale of electricity, however, as in other features of the business, we have learned many things, and the reorganized selling department will be a better one than has ever existed before.

Co-operation with Manufacturers and Dealers

Another reason for accelerated growth will arise from constantly increasing activities on the part of the manufacturers of electricity-using apparatus and devices. There has

been a good deal of this in the past, but I am convinced there will be more of it in the future. The variety of devices is increasing. Even in a big utility where many men are employed, the time will never come when the sale of all meritorious devices is pushed with the same energy, or even is given the same average amount of attention throughout the year. Thus those interested in each individual product, in order to do the best with it, must be organized to give their sales attention in one form or another to the point of placing the devices in the hands of the actual consumer.

When I say manufacturer, I am using a general term to cover all agencies, other than those of the utilities, which may be used in distributing goods to the user, and I am not excluding the jobber and dealer, who, I think, will become more rather than less of a factor. The basis of sales, particularly of appliances, is on a much better plane than it was a few years ago. Then, on account of the price policies, there was no hope of the jobbers and dealers being a factor because there was not sufficient margin allowed them to cover the cost of the effort. The manufacturer in many cases organized his own retail selling force; but he has been learning—in fact, we have all been learning. Margins to cover the cost of sales have been widened very radically, and we will, I believe, see a great selling force of people other than the utilities devoting their time and energies to the placing of all kinds of appliances on the power companies' lines for pecuniary reasons of their own.

The attainment of the household electric refrigerator to a point where it is practical to promote the sale of it is an illustration of my point. The value of this appliance to the American family as well as to the power companies is admitted. It perhaps is not quite as valuable to the householder as the washing machine and other devices, but it is very much more so to the power companies, and yet I am convinced that the manufacturers and distributors will find it necessary to organize very thoroughly in order to enjoy the volume of business which is necessary to make a reasonable profit and ultimately work down prices.

No doubt, if such forces are necessary to sell the household refrigerator they will be organized and put into the field, and the machines will be sold. In passing, I might comment that some carefully secured figures on a considerable number of these household machines indicate an increase of 50 per cent in the annual bill for electricity after putting the refrigerator in use. In view of the fact that these devices are being sold at the present time to people of means who are fairly large users of electricity, it is reasonable to think that as the devices become popular with the smaller users, the percentage of the annual electricity bill, due to the refrigerator, will be greater.

"FIGURATIVELY, the old cry of the lumber-camp cook, "Come and get it," is coming from the prospective customer from one end of the land to the other, and the vigor with which the electrical forces will "go and get it" is the key to the particular volume of growth we want."

The time has come when the increased use of energy per customer should be the thing to strive for, as such business under most schedules is much more profitable than existing business, on the theory that an improved load factor will result.

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Please do not think I am advocating trying to get this added increment on any basis which is not entirely equitable from the customer's point of view, for, in my judgment, where rates do not automatically take care of the customer's interests, they should be changed for those which will.

And certainly it is to the customer's interest to increase his consumption, for, as I have pointed out, through this very small increase in his monthly expense he will get benefits in the saving of time and promoting of health and comfort which, from the standpoint of his earning capacity, will be a most excellent investment.

Therefore, when both parties to the arrangement are greatly benefited, that is where the activity should lie. This means the complete electrification of the home, store or shop — more conveniences, higher standards of illumination and better heating and ventilation.

"Come and Get It"

Now a little information as to volume of business. Let us take the question of appliances alone. One company that I know of, which is only selling about $6 worth of appliances per connected residence customer per annum, whereas others are selling as high as $20 and $25, sold devices which, on the basis of an average use of $8 worth of electricity per kilowatt of device capacity per annum, would have resulted in raising the company's entire income from its residence customers two per cent.

It was estimated that other agencies sold twice as many of these appliances for the central station's lines as were sold by the central station itself, indicating a total from this source of six per cent increase in the bill, and this at a time when the development of the sale of these devices is very small.

That the kilowatt-hours per meter are actually going up is shown by the fact that in the company referred to, in a ten-year period, the kilowatt-hours consumed per residence customer have doubled. I believe that rural service and a more rapid increase in buildings incident to the abounding prosperity of this country will extend the field for added customers, so that the annual increase of utility customers for many years will be greater than it appears possible to figure at this time.

I am convinced that the greatest and most desirable growth, and one which will result in more rapid increases than we have ever had, will come from the demand for more utility service from our present patrons.

The customers want the service because it makes for real economy and conservation of forces; the power companies want the business; the manufacturers want the business; the organizations perfecting co-operation and assisting are improving constantly; money for expansion is easily obtainable, and requisite earnings are assured.

First McGraw Award for Co-operation Goes to J. R. Crouse

McGraw Award Presented to Vice-President of Electric Refrigeration Corporation at Notable Banquet at New York Sponsored by Society for Electrical Development

MORE than two hundred well-known electrical men attended a banquet at the Waldorf-Astoria, New York, the evening of January 15, held under the auspices of the Society for Electrical Development, to confer upon J. Robert Crouse, vice-president Electric Refrigeration Corporation, the medal and purse given him under the James H. McGraw award.

W. W. Freeman of Cincinnati, president of the Society for Electrical Development; Owen D. Young and James H. McGraw were listed as speakers, but very unfortunately an attack of illness made it impossible for Mr. McGraw to attend and an unexpected call of unusual importance took Mr. Young out of the city. Both Mr. Young and Mr. McGraw sent letters of regret in which they congratulated Mr. Crouse on his achievements and testified to the vital need for co-operative work in the development of the electrical industry and the importance of recognizing individual initiative. A letter of regret from Secretary Hoover was also read.

Doherty First Speaker

Henry L. Doherty was the first speaker. Mr. Doherty is an old friend of Mr. Crouse and as the first president of the Society for Electrical Development was an active worker in the early days of electrical co-operation, which he described, paying a hearty tribute to the leadership of Mr. Crouse.

Earl E. Whitehorne, associate editor of *Electrical Merchandising*, then read the citation for three certificates of honorable mention awarded by the judges of the 1925 award for co-operation. These citations went to George W. Austin of Toronto, who was the originator of the "red seal" plan for the promotion of adequacy in wiring installations; to Clyde L. Chamblin, president of the California Electrical Construction Company, who has been a leader in co-operative effort on the Pacific Coast, and to John J. Caddigan, assistant to the general superintendent of the Edison Electric Illuminating Company of Boston, who adapted the electrical show idea for use in small communities and neighborhood centers.

Medal Presented

The medal was then presented to Mr. Crouse, with the following citation:

"J. Robert Crouse, called the 'father of co-operation in the electrical industry' and founder and director of the Society for Electrical Development, for twenty years has been the outstanding exponent of the principle that electrical men should work together for the upbuilding of the electrical market and the promotion of the idea of 'doing it electrically.' Beginning in the vision of a co-operative publicity program for the lighting industry, his conception gradually expanded until it embraced the entire scope of electric service and the broad purpose of increasing human happiness by relieving drudgery both in industry and in the home. Under his aspiring leadership and through the sheer force of his engaging personality and his unflagging zeal, this, his dream of early days, has gradually influenced the thinking and the spirit of electrical men until it has effected a degree of co-operative achievement unparalleled in any other industry.

"It was through his initiative that 'Camp Co-operation I' was held at Association Island in 1912, which was the first conference of the foremost men of all branches of the electrical industry to discuss the possibilities of co-operation in market development, and out of this meeting came the organization of the Society for Electrical Development. Despite his retirement from the electrical industry for a number of years, his interest in the furthering of co-operation for upbuilding the electrical market never diminished, and his dynamic enthusiasm continued to win new converts and carry the movement forward. With his return to the electrical industry comes the most notable recent example of his progressive leadership, in the organization of the manufacturers of electric refrigerators into a council that, almost at the birth of this new and rapidly expanding branch of the industry, has established a high standard of harmony of purpose and a co-ordinated program of creative selling that is bringing great impulse to the development of this vital service to the American home. In recognition of this distinguished contribution to the advancement of co-operation in the electrical industry, the judges have awarded to Mr. Crouse the medal and purse for co-operation, given under the James H. McGraw award for 1925."

J. Robert Crouse

Vice-president Electric Refrigeration Corporation, receives McGraw Award for Co-operation.

Mr. Crouse, in expressing his appreciation of the award, said that whatever he had been able to do for co-operation was the result of sympathy for the idea on the part of electrical men everywhere.

Guy E. Tripp, chairman of the board, Westinghouse Electric & Manufacturing Company, was called upon and spoke appreciatively of Mr. McGraw's work in bringing together diverse fields of the industry, calling him a practical philosopher and a business man with ideals.

Banquet to Celebrate the Presentation of McGraw Award for Co-operation to J. R. Crouse

Buying Control

As Practiced in the Modern Department Store

By S. J. RYAN
Merchandising Counselor

DURING a recent survey of the electrical appliance retail field, one of the things that impressed me was the need of a more scientific or (as I dislike that much-abused term) a more practical method of controlling stocks. We are using the modern department store as an example of practical stock control, but chain stores of various kinds have just as efficient methods.

As a matter of fact, there is no basic difference between any of these systems as they are all based upon the same premises.

Every management has its own pet forms, to which they seemingly attach great importance and attribute marvelous results. Frequently they are guarded with great secrecy and one large chain organization has even gone as far as to copyright its forms so that no one else can use them. This is rather amusing as, in the hands of the skilled merchandiser, one form will serve just as well as another.

Importance of Personal Equation

One thought that should be borne in mind throughout this discussion is that no form, or combination of forms, is so important in merchandising as the *personal equation.* Forms are merely a means to an end, so if you prefer those of your own instead of the ones illustrated herewith, by all means use them.

There is a striking similarity between the great majority of retailers of electrical appliances today and the predecessor of the department store, the general store. The need of specialization was one of the causes that brought the departmentized store into existence. Another was a question of finance. The old time merchants appreciated the necessity of a more widespread appeal but frequently were unable to finance it. They resorted to rented or "outside" departments. This made separate accounting necessary. Probably very few of them foresaw the great benefits that were to follow from these crude beginnings.

Modern stock control methods can be used by the electrical retailer without departmentizing his business, but they will prove much more benefical if the business is departmentized. All the larger retailers and central stations should departmentize their businesses. This is the first step in scientific merchandising.

FORM 1.

MERCHANDISING PLANS

DEPT No. ____ NAME ____

SPRING / ~~FALL~~	JANUARY / ~~JULY~~	%	FEBRUARY / ~~AUGUST~~	%	MARCH / ~~SEPTEMBER~~	%	APRIL / ~~OCTOBER~~	%	MAY / ~~NOVEMBER~~	%	JUNE / ~~DECEMBER~~	%	TOTAL OR FINAL	%
RETAIL SALES														
1924	18.624		16.318		27.770		20.545		20.810		23.050		127.117	
1925	19.841		17.470		25.305		22.900		23.607		25.890		134963	
PLANNED 1926	22.500		20.000		30.000		26.000		27.500		30.000		156.000	
ACTUAL 1926	21.346		19.849											
SEASON GAIN OR LOSS	1.505		3.934											
1ST OF MONTH RETAIL INVENTY 1926	41.465		42.318		45.510		42.970		40.628		37.745		30.961	
1925	39.605		39.110		41.342		38.854		37.937		37.456		29.790	
PLANNED 1926	37.500		35.000		40.000		37.000		37.000		35.000		30.000	
ACTUAL 1926	37.031		34.777		38.953									
STOCK TURNOVER 1925		50		43										
PLANNED 1926		.67		.52										
ACTUAL 1926		60												
MARK DOWNS 1925	1.908		356		410		274		374		890		4.162	
ESTIMATED 1926	1.500		400		300		300		300		700		3.500	
ACTUAL 1926	1.610		705											
PURCHASES AT RETAIL 1925	21.784		20.008		23.777		22.952		18.455		24.114		129.310	
ALLOWED 1926	21.500		28.400		27.300		26.300		25.800		25.700		154.000	
ACTUAL 1926	20.697		24.736											
PURCHASES AT COST 1925	17.757		17.008		13.936		13.352		11.073		14.468		77.586	
ESTIMATED 1926	17.900		15.740		16.380		15.780		15.480		15.420		91.700	

INITIAL MARK-UP REQUIRED (RET) 40 MAINTAINED MARK-UP REQUIRED 37 STOCK SHORT

The Merchandising Plan or Control Form

RETAIL sales and first of Month Retail Inventory figures for 1924 and 1925 are used as a guide in arriving at the Planned Figures for 1926. Stock Turnover percentages, Mark Downs, Purchases at Retail and Purchases at Cost for 1925 are used for the same purpose. The form is headed so it can be used for either Spring or Fall seasons by crossing out season not being used.

First, the planned sales for Spring, 1926, are calculated and entered as related in the text of this article. Retail Inventory for first of each month and the stock turnover percentage is handled in the same way. Mark Downs are entered in a similar manner. From these figures the Purchases at Retail and the Purchases at Cost are arrived at and entered for each month in the year.

Example: January, 1926. Planned Retail Inventory, $37,500; actual inventory, $37,031; thus automatically increasing *retail* purchasing allowance (or Open To Buy—O. T. B.) $469. Adding this to the $21,500 previously allowed gives us $21,969. (The original allowance of $21,500 was arrived at by estimating a Jan. 1 retail inventory of $37,500, subtracting planned sales of $22,500, leaving a net inventory of $15,000. Feb. 1 planned inventory being $35,000, this gave us a purchasing allowance of $20,000, to which we added $1,500 anticipated markdowns, or a total of $21,500). Inasmuch as the required *initial* markup on purchases is 40 per cent on retail, this gives us a purchasing allowance *at cost* of $13,181 for the month. (Cost figures are only used for convenience.) This is all based on our doing a business of $22,500 at retail in January.

WHAT actually happened was that we sold $21,346 and took markdowns of $1,610, a total of $22,956 at retail. We purchased $20,697. We therefore decreased our retail stock by $2,259 and subtracting this amount from the Jan. 1 inventory of $37,031, we find we have a retail stock on Feb. 1 of $34,772. The same operations are repeated in February, resulting in a retail inventory on March 1 of $38,953. This being $1,047 less than our anticipated inventory, it automatically increasing our O. T. B. for March by that amount at retail, or $628 at cost.

This procedure is followed throughout the season. It is a simple system, although it may sound complicated in explanation. Let us take the Spring season of 1925. We reduced our retail stocks by sales of $134,963 and markdowns of $4,162, a total of $139,125. We increased our stocks by retail purchases of $129,310, or a net reduction of $9,815. Our retail inventory Jan. 1, 1925, was $39,605 and on July 1, 1925, $29,790, or a reduction of $9,815, which balances.

Stock turnover percentages are calculated by taking the *average* of the first of month and end of month inventories and dividing the month's sales by that amount. Example: Jan. 1, 1926, inventory $37,031, Feb. 1, $34,772, average $35,902. Divide sales of $21,346 by $35,902, result 60.

Let us assume that our business is departmentized. This means we can not only control our stocks to better advantage but our departmental expenses as well. Each department becomes a business within a business. Great mercantile institutions, such as the modern department stores, could not be operated nearly as efficiently as they are without being departmentized. It is logical to assume the same rule applies to electrical retailers. It is not necessarily an expensive operation and pays for itself many times over.

The next step, after departmentization, is the adoption of the retail system of accounting. This fits in ideally with departmental control, is simpler and is more accurate than the old cost or cost-and-retail systems. It would be easily adaptable for the electrical retailer because nearly all of his merchandise has a fixed retail. This subject has been frequently discussed in *Electrical Merchandising* in recent months. Probably its best indorsement is the significant fact that department stores and chain systems are rapidly adopting it throughout the country.

Example of Plans

A specific example of a departmental merchandising plan will best serve to illustrate the foregoing. First, the year is divided into seasons of six months each, usually called Spring and Fall. The known factors are the retail sales and stocks of the similar period of the preceding year, together with the initial and maintained gross-margin percentages, the amount of mark-downs (depreciation on stock), the stock shortages as revealed by the inventories and the amount of stock at the beginning of the period this year. Inasmuch as these "buying plans" or forecasts are usually made up in advance, the latter figure is an estimated one—but it is *conservatively* estimated. Remember, when forecasting merchandising operations the merchant is acting as a banker to the department, so he is conservative with his allotments.

The next step is a knowledge of the national and local factors influencing sales in the same period the preceding year, and those likely to have a bearing on this year's operations. Upon this, he bases his estimate of the retail sales for the period this year. Usually this calls for an increase, but there are occasions when a decrease is shown. For example, a store in the Pennsylvania anthracite region. Despite favorable national indications last year, such a merchant would only have been exercising natural prudence when forecasting last Fall's business if he had calculated a decrease for the season because of the possibility of a strike. This strike actually occurred later on. Furthermore it is so much simpler to buy goods than to cancel commitments.

Judgment Comes First

Having calculated the retail sales, his next step is to determine the amount of stock necessary for each month's business. Theoretically this is simple, a mathematical calculation of stock turnover achieved through dividing sales by stock. Actually other factors usually enter into it—a very heavy stock on hand, for example, which it is impractical to reduce too abruptly. Sometimes he finds a stock actually too low and it needs to be cautiously filled in.

It is in the calculation of the stock on hand that mathematics must be subordinated to the judgment of the trained merchandiser.

Let us assume, for the purpose of example, that the operation of the preceding year has been a satisfactory one. In that event he will forecast a natural increase in sales and a slightly higher ratio of turnover. By this means he arrives at the amount of stock to be carried.

The next step is a calculation of the amount of "mark-downs" or stock depreciation for any reason whatever, by months. At best, this is very largely guess work regardless of how shrewd the calculations prove to be at the end of the period. Experience is, of course, a guide and also a knowledge of the condition of the stock on hand—its age, appearance and salability.

Then he calculates the amount of money available, by months, for purchasing merchandise, usually termed the "open to buy." This is very simple, with the other factors in his possession. First he takes the expected sales for the month. Then he *adds* the estimated amount of mark-downs, because they serve the same purpose as a sale in decreasing the stock on hand. Next, if the stock on

Continued on page 6188

Form 2.

ORDER ENTRY

DEPT. No. ——— NAME ———

SPRING / ~~FALL~~	JANUARY / ~~JULY~~	FEBRUARY / ~~AUGUST~~	MARCH / ~~SEPTEMBER~~	APRIL / ~~OCTOBER~~	MAY / ~~NOVEMBER~~	JUNE / ~~DECEMBER~~	FOLLOWING SEASON
ORIGINAL O.T.B.	17.900	15.740	16.380	15.780	15.480	15.470	
ADJUSTED O.T.B.	13.181	15.377	17.008				
INVOICES C/O			7.547				
ADVANCE ORDERS			1.763	7.000	670	110	
ORDERS C/O			4.789				
	17.418	14.541	8.594				
3/1			416				
			9.010				
3/7			517				
			9.527				
Can.			710				
			9.317				
3/0			1.240				
			10.557				

The Order Entry Form

FORM 1 is the monthly and seasonal control of stocks. Form. 2 is the daily stock control. In department stores, these control figures are usually reduced to cost because by far the greater percentage of goods bought have no fixed retail. Some stores have succeeded in placing this form on a retail basis, however, and the practice is spreading.

The original entries on this form are derived from Form 1. You will note the "Estimated 1926 Purchases at Cost" figures on Form 1 become the "Original O. T. B." figures on Form 2. Thus the purchasing allowances for each month of the season are available in advance. These O. T. B. figures are, however, adjusted as the season progresses. In this operation, for example, we find this department is, on March 4th, open to buy $6,456 for March, $13,780 for April delivery, $14,810 for May and $15,310 for June delivery, *all at cost*, based on the season's planned business.

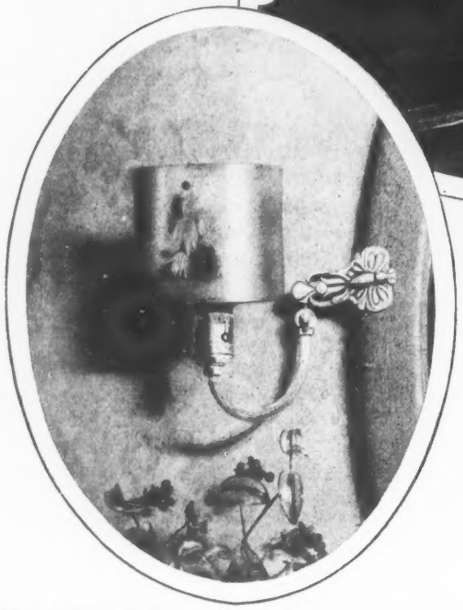
Example: Original O. T. B. for January $12,900 (See Form 1). This is the same as $21,500 at retail, inasmuch as a 40 per cent gross margin (initial markup) is required on purchases. Our actual Jan. 1 stock is $37,031, or $469 less than planned. We add this to the $12,900, giving us an O. T. B. for January of $21,969 at retail or $13,181 at cost. This calculation is based on retail sales in January of $22,500 and a retail inventory on Feb. 1 of $35,000. Failure to reach these figures, or exceeding them, automatically adjusts the February O. T. B. Succeeding months work out in the same manner.

New Lamps for Spring Stocks Show V

Something unusually artistic and fine in pottery lamps is shown in this group which comprises an Italian "Bassano Ware" lamp and two lamps of domestic pottery. The Italian lamp in the center is made of "terraglio," resembling soft paste porcelain and the yellow parchment shade is decorated in colors to harmonize with the base. Intended price of base is $22; the 18-in. shade is $24. The pottery lamp to the left has deep amber base and the one at the right a bluish white pottery base. The shades of both are of linen, decorated in bird colors and designs.

Manufacturers' names on page 6188

Among the more decorative lamps to appear on the market are the two pictured, of genuine marble. The floor lamp has shaft of chased brass with marble insets. The georgette crepe shade has medallion of gold lace. Its retail price is $157 The marble table lamp has pleated georgette shade, trimmed with silk braid. Intended price $96. The table clock, set in etched French glass, is $45.



The "Attachette", a high grade clamping bracket. Soft padded so as not to injure the finest furniture surface. List $4.25, shade $2.

Rayglow bridge lamp. Metal base and shaft. The shade of beaded material Bird of Paradise design put on with luminous beads. In a darkened room this design glows with a silvery light. Soft ribbon purling top and bottom. List $59.

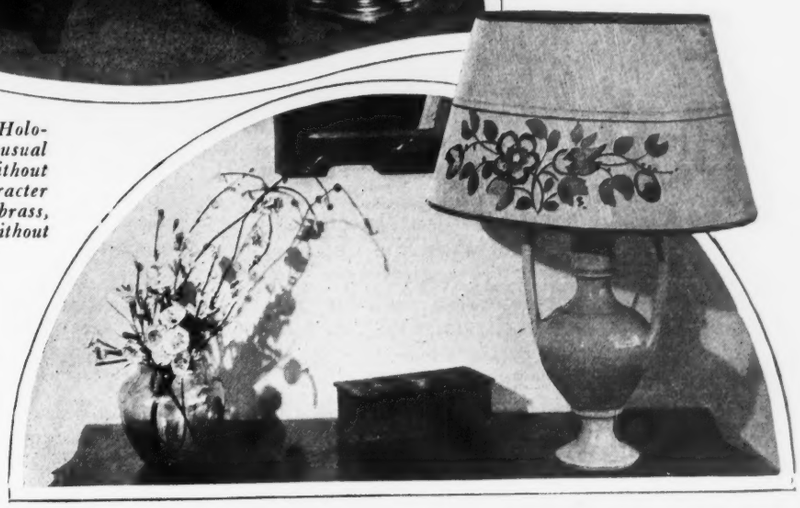
Variety in Style and Price Range

"Floorette" bridge lamp. Shade on heavy silk cord adjusts at any height. Standard finished in old steel with gold base. Shade of pleated georgette with velvet band overlaid with silk braid. List $86. On the table a pair of Dresden figure boudoir lamps at $50 a pair, and Dresden figure table lamp with onyx base, shade of putty colored georgette, cut Ivory final, $60. The junior has a wrought iron base and shaft, shade is pleated georgette with braid of cut velvet and gold, $73.

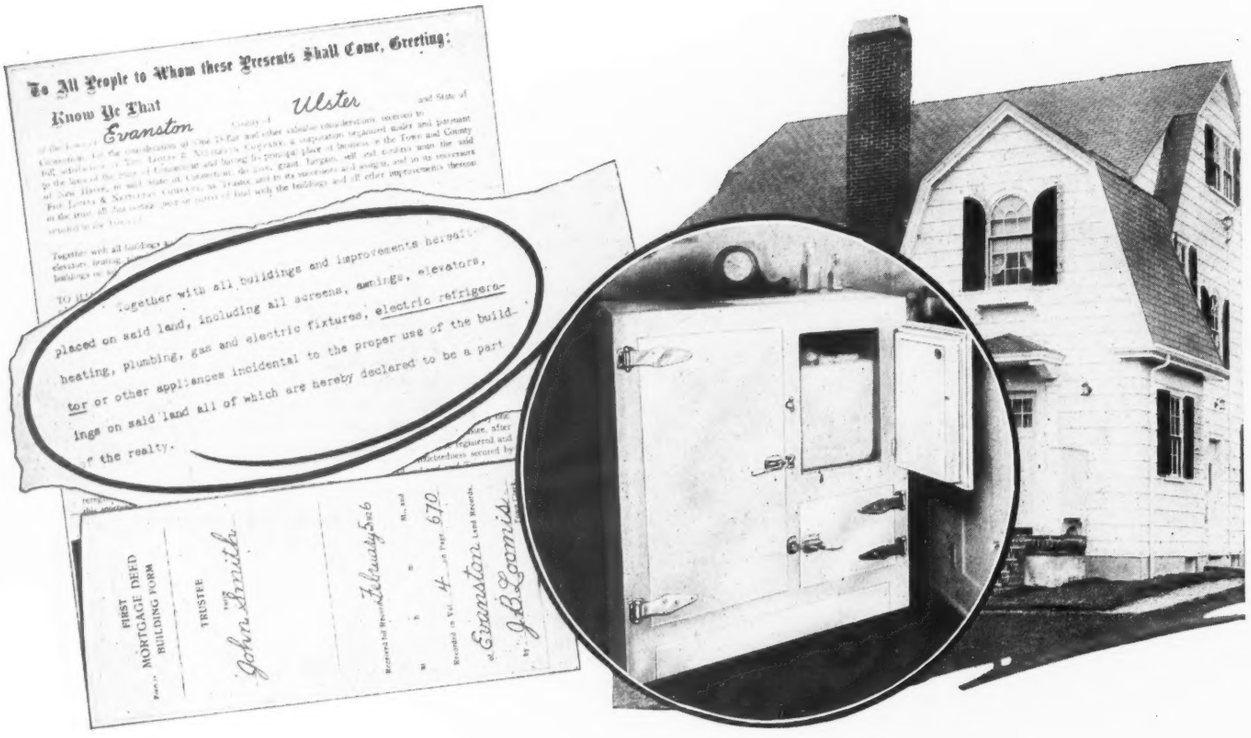
Prices subject to trade discount

The bridge lamp at the left has a pleated georgette shade, trimmed with ruching. Lamp retails for $17.50. Gold plate and ebony are used as a finish on the brass base of the floor lamp at the right. The shade is trimmed with metal braid. Price, $42. The table lamp is decorated in Italian bronze. The glory crepe shade has a brocaded georgette top. Price of lamp complete, $56.50. The imported duck jug sells for $13.50.

This junior lamp is equipped with a Holophane lighting unit producing unusual efficiency and distribution of light, without interfering with the decorative character of the lamp. Base and shaft of old brass, shade of georgette over silk, $60. Without Holophane unit, $50.



Unusually lovely in detail and design is the new pottery lamp shown here. Its two-armed base is indeed quaint and new among pottery lamps. The shade is decorated linen. Intended price $20.


To All People to Whom these Presents Shall Come, Greeting:
Know Ye That
Evanston
Ulster
together with all buildings and improvements hereafter
placed on said land, including all screens, awnings, elevators,
heating, plumbing, gas and electric fixtures, electric refrigera-
tor or other appliances incidental to the proper use of the build-
ings on said land all of which are hereby declared to be a part
of the realty.
FIRST MORTGAGE DEED BUILDING FORM
TRUSTEE
John Smith
Evanston
J. B. Loomis

Writing the Cost of the Electric Refrigerator in the Building Loan

THE Oil Burner & Refrigerating Company, 508 Davis Street, Evanston, Ill., has been selling electric refrigerators at the rate of five a week ever since last May. John F. Kennedy, president of this concern gives, as his main reason for this record, the fact that he "gets 'em when they're young." In other words, he goes right after the architect, the builder and the prospective owner just as soon as he receives the first hint that "Mr. So-an-So is thinking of building a new home."

He specializes on this kind of a prospect because: "If I get in the picture soon enough, I can arrange to have the entire cost of the electric refrigerator and its installation charge *written in the building loan.*" This, according to Mr. Kennedy, makes it much easier to close the sale. It guarantees prompt payment in full and it permits the architect to plan the exact size space and proper location for the model and make of refrigerator that has been decided upon.

Electric Refrigerator Considered Part of House

"An electric refrigerator may legally be considered a part of the house just the same as the furnace or the set tubs," says Mr. Kennedy. "Therefore, treat it as such and arrange, whenever possible, to have its entire cost written into the building loan or first mortgage deed. This is an entirely practicable scheme, it has a number of advantages and, because it is easier for the owner of a new house to pay for electric refrigeration in this manner, it is a comparatively simple matter to sell him on the idea."

Mr. Kennedy sheds further light on the operation of a transaction of this kind when he adds:

"Over fifty per cent of our customers specify definitely in their building-loan application that a certain sum is to be used for electric refrigeration. The rest of our sales are made to people who already own their homes or to home builders that we are not able to reach in time to explain to them the merits of this building clause proposition.

"When an allowance is made for the refrigerator in the building loan we generally get our money in one lump sum. The procedure is to first go to the owner and obtain a "fixture payment assignment." This is an order on his bank or loan company to pay to us the sales price of the refrigerator. This money is, of course, deducted from the building mortgage."

Mortgage Banker Explains

Mr. Kennedy then quotes a large mortgage investment house in explaining the attitude of the lender:

"Our mortgages contemplate the fixtures installed in the property rather than delivered on the premises. The owner of the property is at liberty to assign to the

dealer, out of the mortgage money, the amount agreed upon as payment for the electrical refrigerator."

"It is also well to have a special electric refrigerator clause inserted in the building specifications," concludes Mr. Kennedy. "This accomplishes two things. It assures the owner that his refrigerator will be properly installed and it makes it easier to obtain money from the building loan in payment of the refrigerator, inasmuch as this refrigerator has been specifically mentioned as a part of the building. This clause should read about as follows:

> As shown on the drawings a recess shall be provided for receiving an electrical refrigerator of the following make and specifications. (Here insert the name and model number, capacity, and dimensions of the electric refrigerator it is proposed to install). Said machine shall be firmly installed in the special recess as provided in the floor plan of the kitchen. This refrigerator to be encased and to be considered as an integral part of the building. The client shall run two No. 12 wires and provide an outlet for the electrical connection of said machine and shall connect such wires on lighting circuit, allowing for a load not exceeding 115 watts."

Forty per Cent Appliance Saturation in Cleveland

A SURVEY recently conducted by the Electrical League of Cleveland showed an appliance saturation in that city of 40 per cent!

No information on this subject had been collected since the second electrical home in 1921, consequently it was decided to prepare a total of two thousand survey cards and distribute them in lots of two hundred to newspaper employees, department store employees, factory office employees, bank employees, factory employees, central-station employees, attorneys, physicians and surgeons, electrical men; and two hundred were filled out by exhibit visitors.

The double government post cards announced the desire to gather statistics for the compilation of a report on the number of electrical appliances in use in Cleveland homes and it was stated on the card that under no circumstances would the information be used for commercial purposes.

The results tabulated from these cards are shown in the accompanying chart.

Double Check on Survey

There being some question concerning the accuracy after the results had been tabulated believing that possibly these reports might represent the number of appliances in use in the better homes occupied by business and professional people, a further check was made on homes, 74 per cent of which rent for $25 to $50 per month, and 26 per cent of which rent from $55 to $130 per month.

The number of appliances in use in these homes with an average rental value of $54.35 per month are shown in column two of the following tabulation:

Electrical Appliances in Use in Every One Hundred Homes

	Col. 1*	Col. 2*	Col. 3*
Hand Irons	96	97	71
Vacuum Cleaners	85	84	31
Toasters	70	68	23
Clothes Washers	63	52	21
Fans	48	39	19
Percolators	45	45	13
Radiant Heaters	38	34	10
Heating Pads	36	21	*
Sewing Machines	30	21	*
Grills	28	28	*
Waffle Irons	18	21	*
Ironing Machines	12	3	1½
Electric Refrigerators	5	1	½
Ranges	5	2	3
Dishwashers	2	0	*

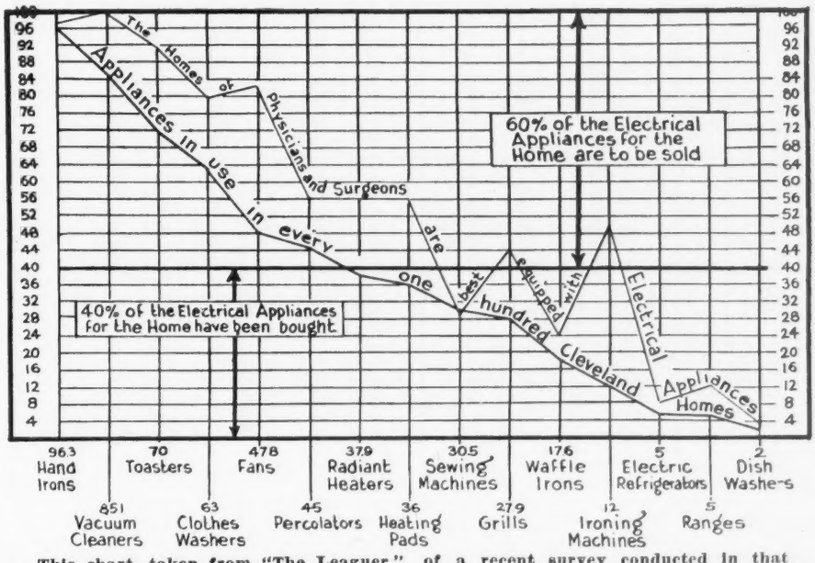
*Column 1—In ten groups of Cleveland homes.
*Column 2—In Cleveland homes renting for an average of $54.35 per month.
*Column 3—In the United States.

Readers will note that column one represents the appliances in use in every one hundred homes, percentages having been taken from the result of all cards received, while column two shows the percentage of appliances in use in homes with an average rental value of $54.35 per month, and column three shows the percentage of appliances in use in every one hundred homes throughout the United States.

It is interesting to note, as shown in the chart, that the homes of physicians and surgeons are best equipped with electrical appliances which demonstrates the confidence of doctors and their belief in the health and economic advantages of electrical appliances.

The check on the cards by groups shows that electrical men have 8.89 out of a total of fifteen appliances as shown at bottom of chart, physicians and surgeons come next with an average of 7.88, attorneys 6.54, factory employees 5.69, bank employees 5.64, factory office employees 5.57, department store employees 5.55 and newspaper employees 5.47.

Survey of Appliance Owners in Cleveland


The Homes of Physicians and Surgeons are best equipped with Electrical Appliances
Appliances in use in every one hundred Cleveland Homes
60% of the Electrical Appliances for the Home are to be sold
40% of the Electrical Appliances for the Home have been bought
96 92 88 84 80 76 72 68 64 60 56 52 48 44 40 36 32 28 24 20 16 12 8 4
963 Hand Irons
70 Toasters
478 Fans
379 Radiant Heaters
305 Sewing Machines
176 Waffle Irons
5 Electric Refrigerators
2 Dish Washers
851 Vacuum Cleaners
63 Clothes Washers
45 Percolators
36 Heating Pads
27.9 Grills
12 Ironing Machines
5 Ranges

This chart, taken from "The Leaguer," official publication of the Electrical League of Cleveland, shows, as a result of a recent survey conducted in that city, that doctors are the best appliance customers, and lawyers the next.

The live wires who are replacing obsolete fixtures with more modern lighting units in Western Pennsylvania. L. B. Michaels who initiated and who is now directing this activity is the pleased-looking gentleman at the extreme right.

Refixturing with a Utility Unit

THAT there is a large market for a utility lighting unit which is suitable for installation in various rooms, was shown when the customers of the West Penn Power Company, insisted upon purchasing kitchen lights for sunparlors, bath-rooms, nurseries, sleeping-rooms and hall-ways.

To meet with this demand a new unit was developed and a sales campaign is being conducted by L. B. Michaels among the customers of the West Penn Power Company, in a number of communities in Western Pennsylvania. The unit being sold is a decorated glass enclosing bowl of either the close ceiling type or suspended on chains. Owing to its resemblance to Dresden China it has been named "The Dresdenaire."

Results have been good. In each 100 calls the men are on the average selling about 8 per cent more Dresdenaires than kitchen lights, the results naturally varying among different men and in different territories.

The Selling Plan

As the Dresdenaire campaign has been just recently started, advertising is not being done extensively and details are not all worked out. But as a preliminary to a more intensive campaign over 1,000 units have been sold.

The cash price of the Dresdenaire is $9 installed complete with a 100-watt lamp and Lavalier switch. The time price is $10—one dollar upon delivery and one dollar a month.

Three salesmen or a crew manager and two salesmen accompany either one or two fitters with a truck load of Dresdenaires and kitchen units to the territory. The salesman carries a sample of either the kitchen light or Dresdenaire wired up with a plug with which he makes his demonstration.

The customer signs the order and the lights are delivered and installed "on the spot," c.o.d. $1 per light. The fitter collects the down payment.

Some of the West Penn Power Company offices are in coal regions and mill towns where the foreign element predominates. This large foreign population renders the straight trial proposition, with no down payment, impracticable.

KITCHEN lighting unit campaigns have brought proper illumination to over 4,000,000 kitchens. The living rooms, halls and bedrooms of these and other homes are waiting to be sold new fixtures for both light and decoration.

The West Penn Power Company is campaigning a decorated glass utility unit for every room in the house and is selling 8 per cent more "Dresdenaires" per 100 calls than kitchen units.

The c.o.d. cuts sales per day per man by about one-half and necessitates a high rate of commission.

Total commissions for selling and installing are $2.50 per light, with no deductions for removals on delinquent accounts. There are however very few removals under this system, probably not more than 2 per cent.

Finding and Keeping Salesmen

There are about thirty men working on the West Penn Power Company proposition. The campaign salesmen, crew managers, and fitters are all in the employ of The L. B. Michaels Company, who own the trucks being used.

The best source from which salesmen have been secured is from among friends of the present selling staff. The next best is from the personnel department of the utility company. Among applicants for all sorts of jobs with the electric company, are men who at some time have had sales experience.

The salesmen are paid promptly and liberally. The interest of the men is kept up with prize contests, daily letters, quotas, and pay in regular commissions plus bonuses. The bonuses being payable in thirty-day time, provided the salesman has been working regularly and has not left the company. All office orders are

turned over to salesmen during the time the campaign is under way.

It has been found that the best method of obtaining leads is to go out after them. All sorts of schemes to find prospects have been tried, but nothing has compared with house-to-house solicitation.

Call-cards from the addressograph, (as the meter reader makes his calls), are almost a necessity in order to realize the full value of the territory. The men average thirty-five calls a day.

Shown here is a sample of some of the newspaper copy being used. Newspaper publicity is preferred even in small towns. It is more adaptable, may be changed over night if necessary, and much or little may be used as required.

Large space copy has proved most efficient. Two quarter page ads. with uniform border will dominate the page, and, although only half-page expense, has the effect of full-page copy.

About 12,000 kitchen lights have been sold in this territory. This represents about 12 per cent of the meters in this division. As the Dresdenaire is selling to a larger percentage of the customers than the kitchen light, it is very evident that this campaign will end even more successfully than it has started and a greater market will have been filled by offering the customer a light adaptable to practically any room in the house.

Sells 300 Kitchen Units in Four Weeks

Mrs. A. C. Fennell of Albany, Alabama, recently undertook an intensive kitchen unit campaign, during which she sold 300 lighting units in four weeks. She not only improved the kitchen lighting, but sold units for every room in the house.

One important argument for buying the light units which was effectively used by Mrs. Fennell, concerned the survey recently held in Albany, which brought out the fact that a great many of the school children had defective eye-sight.

Mrs. Fennell usually sold the units without mentioning the five days' free trial which went with the unit, but did so if finally necessary. As a result of her efforts in selling lighting units, a great deal of missionary work was accomplished.

Of the 300 units sold to date, only thirty-eight have been returned.

Winnipeg "Hydro" Sells Ranges on Eleven Years' Time

AN ENTIRELY new idea in the merchandising of electric ranges has been developed in Winnipeg, Canada, where 4,330 ranges have been added to the lines of the city "Hydro" within the period of a year and a half. The present record is 19,000 electric ranges on the city lines, with a city population of only 200,000.

The selling campaign has divided itself into two major divisions. To individual consumers ranges, including installation, are sold at $15 down and $5 a month. To apartment house owners, ranges are rented, or virtually sold on an eleven-year basis without any initial expense for wiring or equipment.

Ranges Installed Free

An extensive advertising campaign carried on among apartment house owners and also among those who rent apartments has been largely instrumental in bringing about this result. Billboards in conspicuous locations throughout the city and letters addressed to tenants were among the methods used.

The scheme in brief is this: Any apartment house owner, which means the owner of any rented quarters from a double house up, may have ranges installed in his apartments free of charge upon signing an eleven-year contract by which it is guaranteed to pay 1 cent additional for every kw.-hr. used on the range during that period. The domestic rate for electric cooking in Winnipeg is 1 cent per kw.-hr. with a 10 per cent discount, or net .9 cent per kw.-hr. and the additional charge brings the figure up to 1.9 cents per kw.-hr., leaving the operating cost of the range still below that which is possible with gas. During the period of the contract, the owner may purchase the ranges upon payment of the retail price minus a depreciation charge of ¾ of 1 per cent per month for every month the contract has been in operation. In other words, the ranges automatically become the property of the owner in eleven years' time.

Recently the scheme has been slightly modified so that the owner pays for the wiring, either outright or on a ten-year basis, paying $10 down and $2.70 every half year. Instead of the kw.-hr. basis of payment, an equivalent sum of $1 per month on all ranges costing $70 or under, or $1.25 on ranges costing more than $70 is charged.

Three types of ranges are sold at prices ranging from $65 to $92.50. These were selected after severe tests to determine the most durable equipment and that requiring the least maintenance. Records kept on one of the types of range used are said to show a cost of maintenance to the city department of 1.7 cents per month per range. In figuring the merchandising returns from the plan, $1 a year per range has been allowed for maintenance costs. Ranges are sold at wholesale prices plus a $7 handling cost.

The investigating committee which sanctioned this plan of merchandising on the basis of its financial returns submitted a report which purports to show an annual merchandising profit to the city of some $5,800 on 5,000 ranges, not to mention the return in the current consumed, which it is figured amounts to $140,000 annually. The ranges are to be paid for in eleven years time with a 5¼ per cent interest return on the investment during that period. The figures follow:

Cost of 2.500 stoves at $70..	$175,000.00
Revenue	Per Year
2,500 stoves at $1 per month or $12 per year.	$30,000.00
Expenditure	
Interest at 5¼ per cent...	9,187.50
Sinking fund, 11 years...	12,644.00
Maintenance at $1 per stove	2,500.00
10 per cent vacancies....	3,000.00
	$ 27,331.50
Annual estimated profit....	$ 2,668.50
	$ 30,000.00

Cost of 2,500 stoves at $90..	$225,000.00
Revenue	Per Year
2,500 stoves at $1.25 per month or $15 per year..	$ 37,500.00
Expenditure	
Interest at 5¼ per cent..	11,812.50
Sinking fund, 11 years..	16,258.00
Maintenance at $1 per stove	2,500.00
10 per cent vacanies.....	3,750.00
	$ 34,320.50
Annual estimated profit....	3,179.50
	$ 37,500.00

The small profit, it is figured, will be sufficient to care for underestimations or unforeseen contingencies.

Setting Up a Lamp Department

ONE of the largest eastern central stations recently asked a manufacturer of lamps and an expert on lamp merchandising to put into written form his recommendations on lamp merchandising.

The memorandum prepared is so clear and covers so briefly, and yet so fully, the reasons why the central station should push the sale of portables and the measures necessary to a successful lamp department that we obtained permission to publish this recommendation for the information of other lighting company executives interested in this merchandise.

Why Central Station Should Merchandise Lamps:

First, a portable lamp is unquestionably one of the largest producers of current on residence lines.

Second, portable lamps produce a large margin of profit, as the common quotation on lamps is 50 per cent off the list.

Third, there is little or no cost for servicing portables.

Fourth, the cost of selling is low because practically all portables are sold off the store floor and not by residence campaigns.

Fifth, because of the style-character of this business, the purchaser is not content to make selections other than from a large display. Therefore, they come to your show room to make a selection and must necessarily see the appliances, which affords an opportunity of selling them in the shop rather than at the home, and, therefore, reduces materially the cost of selling appliances.

How to Set Up Organization for Merchandising Portables:

Purchase:

First, it is absolutely essential to employ a buyer familiar with the purchasing of portables. It is suggested that a woman would be best for this position because of her ability to sense style-changes—because she can arrange the stock to the best advantage, and because it is necessary to keep a very clean and orderly department.

The buyer should not be responsible to anyone but the head of the department in the matter of purchases.

Second, it is obvious that the central station cannot afford to sell the very cheapest class of merchandise. At the present moment, 83 per cent of the business in portables is confined to standing lamps.

At least 80 per cent of the stock to be displayed should retail for from $10 to $50. The remaining lamps should be of the higher type so that the range of choice will cover all the customers of the central station.

It is well to stress here the fact that at the present time, it is impossible to sell the story of illumination to the customer. Practically all lamps are purchased by women, where nothing but style and decoration is considered. Lamps that are purely utilitarian, should be avoided for some years to come. You must sell STYLE.

Third, it would be advisable to send your buyer to the Chicago furniture market in January and June of each year to study the latest developments of the market.

Selling:

First, the arrangement of stock is a very important matter. Portable lamps should be segregated from appliances because the appeal is to different instincts and because it is impossible to inspect the merchandise properly if your attractive lamps are interspersed with washing machines, ironing machines, sewing machines, etc.

Second, it is necessary, too, to carefully train your present sales force in the selling of style-merchandise. Their minds now run along the lines of labor-saving devices and the matter of selling decoration is far different.

Third, under ordinary circumstances, it seems inadvisable to ever campaign a particular portable. It is very difficult to persuade a woman that a certain lamp or shade which you may select, is the proper one for her to have in her home. She wants the same opportunity of selection that she seeks when she is buying her own wearing apparel.

However, it does seem advisable that in this particular case, at least three campaigns for particular lamps should be run for a period of a year, to sell the idea that the central station is again in the portable business and to get them to think in terms of the Blank Company when they desire to purchase lamps. After this has been done, it is recommended that no more campaigns be used.

Fourth, general advertising, newspaper, broadside and bulletin, should be used constantly, drawing attention to the fact that a very wide range of portables are always on display and make an appeal that will arouse a desire to visit an unusual exhibit.

Fifth, adopt a name such as "The Lamp Shop" or "The Lamp Studio" that will create an air of distinction.

Sixth, it is an accepted fact that the best position for a lamp department is in the darkest part of a show room—a place that is not suitable for the showing of appliances.

Link Up Portables with Incandescent Lamps

It is suggested that your incandescent lamp department be in some way intimately associated with the merchandising of portables, so that advice could be given on the lamps to be used in the portables. And it would be to your advantage both ways if the vast number of people who come to your incandescent lamp room, could see both your portable and appliance merchandise.

It would be very instructive to see the stress that is laid on this business by many central stations. Visits to Baltimore, Brooklyn, and Providence, in the East, would be very instructive and would surely convince you of the possibilities in this branch of the industry.

Three Things to Do in Organizing a Central-Station Lamp Section

1. Employ a buyer familiar with purchasing portable lamps. Preferably a woman.

2. Merchandise *high-grade* lamps only. Central stations can't afford to sell the very cheapest lines. $10 to $50 price range for 80 per cent of stock.

3. Send the lamp buyer to the furniture markets twice a year to study developments.

"The advertising value of from six to ten salesmen, driving about town and stopping in different neighborhoods, each with an electric washing machine and your name on his car, can hardly be overestimated."

Reducing Sales Resistance

The Sales Manager of a Successful Electric Shop Tells How He Merchandises Major Appliances at a Profit

By H. T. TIMBERLAKE
Sales Manager Bluebird Electric Shop
Tacoma, Wash.

ALTHOUGH in our shop we feature one electric washer, we also carry practically all the other types. The reason for this is that in our selling experience we have found that sales resistance is greatly lessened by selling the woman prospect the same kind of a machine her neighbor owns—and greatly increased by trying to sell her another type of machine. In fact, one of our selling principles is that if a customer has her mind made up for a certain make of machine, we either give her what she wants or let someone else handle the business. High-pressure salesmanship, which we take to mean selling an article to someone who doesn't want it, is not a paying proposition.

Handling a number of makes of washers has other advantages and as our store location is good there is a certain amount of shopping business. Selling appliances, however, is more than having the stock and having the location. There is always the question of finding the prospect and closing the sale and this is dependent on the personnel of the organization.

The first, and most important, thing in any electrical shop is that the owner or dealer himself must be sold 100 per cent on the merchandising of major appliances. He must believe in the business and must exert every effort toward working in harmony with the salesmanager and crew. If small differences are continually arising between the owner and the sales department, the situation will sooner or later demoralize the sales crew.

Dealer Must Co-operate with Own Salesmen

This backing and co-operation are particularly important where the salesmen are working strictly on a commission basis. If a salesman is not satisfied, or feels that he is being held up or hindered in little ways, most of his time will be spent in discussing these things with the other salesmen. The result will be first, a drop in sales volume, and the next thing you know, your best salesman will leave you.

It is possible by a lack of co-operation to annul the efforts of the best of salesmen. For instance, if a washer is delivered which is not in perfect condition and the salesman when he calls to demonstrate, finds grease leaking out of the machine, the detachable plug of the cord missing, or the drain cock out of order, the demonstration is held up until the salesman makes a trip to the office or waits for someone to bring the missing parts out.

This means that the housewife is delayed in her duties and that her opinion of the washing machine is bound to drop a trifle. Such small annoyances as this cause the salesman to become discouraged and gives him a good excuse for failing to close a sale.

Next in importance to the owner is the salesmanager. There should be someone in the organization who spends most of his time hiring men

and teaching them to sell, so that they can talk intelligently on any appliance.

Training Salesmen One at a Time More Effective

Experience has shown that the training of salesmen is more effective when they are taken one at a time. If an attempt is made to train a number at once, you will find that while spending time in the field teaching one man to canvass, you may lose the best man in the lot. Start one at a time, and when the first man begins to produce, look for another. In this way, you soon will have a good sales crew.

When we hire a man, I spend about three or four days on the sales floor selling him on our line of appliances. After I have sold him, I have him sell and resell me until he can really talk in a way to hold the prospect's attention. When we have reached this point, I go out into the field with him and we make a house-to-house convass of some neighborhood. I do the talking at the first few houses, and then I have him take the lead.

In this way, it is possible to check his weak point between each house and to point out to him the different weaknesses and mistakes he registered at the last interview.

After several days of convassing, the salesmanager should be able to determine whether the new man has the making of a salesman or not. If you find that he has not, tell him so, as you will be wasting both your time and his to go further, as well as robbing another man of the opportunity.

Selecting Salesmen with Cars

We try to get men with cars. If they have an automobile, we have racks built on in the rear, enabling a man to carry a washer on his car at all times. A banner is also furnished, bearing the firm's name and that of the washing machine we are featuring at the time. Thousands of people see these washing machines and read the banners.

Every time the public sees a washing machine on the back of a car, they think someone has bought it and it is being delivered. Unconsciously they are bound to think about the washer. If they see your particular washer and your name more frequently than any other, they think, "Well, it must be the best, as everyone seems to be buying that kind." At least, when they come to buy, they buy from you.

Handling Salesmen

The advertising value of from six to ten salesmen, driving about town and stopping in different neighborhoods, each with an electric washing machine and your name on his car can hardly be overestimated.

We have a sales meeting once a week from 7:30 to 10:30 in the evening, when everything which happens from one meeting to the next is discussed in public. We try to have a factory representative from each factory give the salesmen talks and demonstrations of their particular line.

This is an aid toward keeping up interest in the meetings and bringing in new ideas. We have the salesmen sell the different appliances to each other and find all the weak points that exist among the men. A good get-together meeting about every sixty days with a good feed, will go a long way toward holding an organization together and building up good fellowship among men.

We pay twenty per cent commission on washer sales, and twenty per cent on vacuum cleaner sales. The salesmanager has an over-ride of five per cent on all appliances sold, leaving fifteen per cent for the salesman. On ranges, this is ten per cent.

Commissions Paid Weekly

When $10 is paid down on a washing machine or range, the sale is then investigated by the office and if accepted, commissions are then payable each week. When a salesman sells a $165 washer, for instance, he receives 15 per cent, or $24.75, less one fifth or $4.95, which is held for a reserve. The reserve is built up from all sales made, until the salesman has $150 accumulated. This reserve takes care of rebates—and also helps to keep salesmen.

If a sale reverts, the salesman is charged back with the commissions, less 15 per cent of what was paid in.

If the salesman resigns and has a $150 reserve, he is paid back 20 per cent of this sum for five months. This means that by the time he draws his last reserve, all of his sales are five months old and that any machine likely to revert would have already done so.

Eight Suggestions for Successful Washer Selling

from a successful washer sales manager

1. Keep good advertising before the public at all times.

2. Select good equipment to sell that will do the work and that will require little servicing. We handle all types of washers, but we feature one.

3. See to it that the installation is satisfactory. Test equipment before leaving to see that it works. If the buyer cannot cook her first meal satisfactorily on the new electric range, she will start off with dissatisfaction.

4. Service calls should be made promptly and each call completed before dismissing the case.

5. Get the washer into the home — the rest is easy. When a demonstration has been arranged for, send a salesman with the delivery truck. This insures its not being turned back at the door and also gives a chance for an immediate sales talk. If you leave it, another salesman from a different company may see the delivery and call before you do in the morning.

6. The more a buyer pays down, the less chance there is for the machine to revert. If a buyer becomes delinquent, it is good policy to bring in the machine, after trying to collect. Most such accounts are worthless—do not allow the machine to depreciate in value further.

7. It is easier to sell a woman the same kind of a machine her neighbor has—she has already been sold on its virtues. If she has her mind made up to buy a given make of machine, either give her what she wants or let someone else handle the business. High pressure salesmanship which means selling an article to someone who does not want it does not pay.

8. Start the housewife wanting a washer—and she will take care of the sale herself.

$3,600 Appliance Sales from Survey Costing $74

How an Appliance Dealer in Troy, N. Y., Trained Women "Investigators" to Interview Housewives—Produced 592 Completed Cards to 604 Calls—Cooperated with Local Lighting Company

THE "appliance survey" method of obtaining electrical equipment information from householders, for the purpose of stimulating and directing the efforts of outside salesmen, is, as a rule, favorably looked upon by electrical appliance dealers. The common practice is to employ women who go from house to house asking questions about the electrical equipment of each home and who write the answers on a special "survey card" provided for the purpose. These cards are reviewed by the appliance sales manager. The likely ones are segregated and constitute the basis of an excellent "prospect" list for the salesmen to follow up.

A System That Produces Prospects

That this system will produce real prospects—quickly, in quantities and at a comparatively low rate per prospect, has been demonstrated many times. A recent example is that of the Twin City Electric Company, 114 Fourth Street, Troy, N. Y. This company employed women investigators who individually averaged 150 complete surveys a week. Twenty-four per cent of these surveys developed prospects for one or more electrical appliances. Each investigator received a salary of fifteen dollars a week. This salary was paid by the salesman in whose territory the woman operated. This salesman received, of course, the live leads from the cards the woman turned in and followed them up. That this paid the salesman is shown by the fact that each salesman working with these prospects developed by the survey closed from three to four washing machine contracts a week.

Now the *vital facts* that the salesman must know if he is to pick out the genuinely interested prospects from his batch of cards are not so readily obtained as would at first appear. The average housewife, for example, will not sit down in the midst of her domestic duties and tell some stranger all about the electrical equipment of her home. To begin with, she is naturally a bit suspicious. She wants to know what it is "all about." She fears some ulterior motive. "What are you going to do with this information?" she inquiries. The woman canvasser must give the housewife, therefore, some sort of a logical reason as to *why* she wants all this intimate information. In other words the solicitor must first gain the *confidence* of the person who answers the bell.

The Twin City Electric Company, by developing a method that supplied this reason why obtained a total of 592 completely filled out survey cards from 604 calls. Prospects were piled up at such a rapid rate that this concern was obliged to call off the investigators after the plan had been in operation five weeks. This was necessary in order to give its salesmen a chance to catch up with the accumulation of live leads that resulted. The Twin City company reasoned that most women are very much concerned over the size of their lighting bills and, therefore, used the ever effective selfish appeal to obtain the information desired. Its women "investigators" were instructed in the art of starting with the lighting bill subject and ending with the complete electrical survey written on the card.

How Trained "Investigators" Operate

Let's tell the story in the words of P. J. O'Hara, appliance sales manager:

"Our women investigators were thoroughly trained before they went out on this mission," he says. Their instructions covered every detail of the task before them: how to hold the survey card when entering the replies so that the lady-of-the-house would find it a difficult matter to read the questions in advance; when to smile; the right kind of inflection to put into the voice—and so forth. This was all very important for the slightest slip would mar the impression of genuine interest the investi-

Wired Yes — Not Wired

Name Lent, George — Address 123 1st St — City Wat

Telephone 590J — House Owner H B Gaffers

What is average Electric Bill Per Month $ 2.00 — Think it high ? Yes

How many lights and outlets in house ? 18 — Bell Transformers ? Yes

Do they use Mazada Bulbs or Carbon Lamps ? Maz — Radio installed ? Ravin 5 Tube Good

How many in Family ? 10 — Adults ? 3 — Children ? 7

HOW MANY OF THE FOLLOWING APPLIANCES ARE IN USE ?

	MAKE	AGE		MAKE	AGE
Washing Machine			Collar Motors		
Ironing Machine			Fans		
Dishwasher			Generating Sets		
Electric Iron	H/P	7 Yrs	Electric Toys		
Toaster	H/P	7 Yrs	Boudoir Lamps		
Percolator			Floor Lamps		
Heating Pads	H/P	7 Yrs	Vacuum Cleaner		7 Yrs
Waffle Iron			Battery Chargers		
Heaters			2 Table Lamps	1 1Lt 1 2Lt	12 Yrs
Curling Iron	Flapper	6 Mos	Vibrators		

Are any of the above appliances out of order or repair ? Vac Noisy Elec Wiring Very Poor

Are you considering the addition of any appliances ? See other side

Do you want any information on appliances mailed to you ? Information on DR Fixture

This appliance survey card purposely has no title and is printed in small size (six point) type so the housewife will not be able to read the questions on it. She must answer them as put to her by the "investigator" if she wants to know what it is all about. Supplementary information is jotted down on the back.

gator was attempting to produce, and thus arouse suspicion in the mind of the woman at the door.

"It was not necessary for our survey canvassers to enter the home in order to obtain the information they were seeking. After the purpose of the visit had been explained, however, a few questions asked, and answered, the housewife would frequently ask our representative in. Sometimes she would desire our employee to look at an electrical appliance that was not working properly or together they would count the number of outlets in the house.

"Here is the first part of a typical conversation which would take place when the housewife answered the bell:

" 'Good morning, Mrs. Neil. I am making a survey in this neighborhood for the purpose of improving local electrical conditions — would you be so kind as to tell me the amount of your average monthly lighting bill?' the canvasser would say in a matter-of-fact tone of voice.

Create Impression the Survey Is Routine Matter

"Observe that our representative plunged right into the subject without any preliminaries. There's a reason for this. The idea is to create the impression, right at the start, that this survey is a routine matter—the same as, for example, the reading of the electric meter. Now nearly everybody has had a feeling, at some time or other, that his or her lighting bill was too high.

Mrs. Neil is, therefore, apt to be at once interested but will probably ask—'Who are you?' or 'what company do you represent?' Now it happens that my company has the agency for one of the large and well known manufacturers of electrical supplies. For this reason we secured permission to use this name for this survey. Our canvasser would say, therefore, 'I represent the Blank. Electric Company,' and immediately continue, 'have your lighting bills been satisfactory of late, Mrs. Neil?'

If the reply was of a negative nature—and it usually was—she then obtained the average amount of Mrs. Neil's lighting bills for the last three months. Our women were told that they must be sure to enter all information of this nature and to do so in such a manner that the housewife would not only see that the entry had been made but would get the impression that the canvasser was very much interested.

"Our representative now quickly passes from one question to the next but does *not* ask them in the order in which they are on the card.

The Psychology of the System and How It Works

"Like the able lawyer examining a hostile witness, the entire psychology of the system is to keep the real things that we are looking for in the background and to work them into the picture, one at a time, interspersed with questions of a personal or more interesting nature. Thus there are questions about the size of her family, does she have a bell transformer or use dry cells and has she a curling iron?

"The first few questions are, as I have stated, about her family. How many children? How many adults? Then we ask what kind of incandescent bulbs are used—our women are taught the difference between types of lamps and help the housewife determine the correct answer whenever necessary.

"At about this point comes the first question about an appliance of any kind.

" 'Has she an electric flat iron?' The answer is generally 'Yes.' Good —we want this answer because the idea is to create the impression that we are not selling anything and this answer permits our representative to make a brief notation and continue to the next question. After a few more questions of a similar nature she is asked how she does her washing. The answer is very casually noted. After two or three more questions, designed to strengthen this impression of genuine interest in her electrical problems, the canvasser asks about her vacuum cleaner or some other question concerning the washer, that she didn't get before.

"Perhaps at this point the lady will say 'What are you going to do with all this information?' Our representative is instructed to say 'This will all be tabulated and a general study of electrical conditions in this part of town will then be made —if you desire further details, Mrs. Neil, I will be very glad to give them to you after I have filled in this card.' If the housewife continues to ask questions our representative is instructed to repeat in a gentle, but firm manner, the formula 'I am coming to that in a few minutes, Mrs. Neil' or 'I'll answer that just as soon as I am through.' This makes it necessary for Mrs. Neil to answer the rest of the questions if she wants to satisfy her curiosity and keeps the conversation from getting away from the subject at hand."

How the Salesman Used This Information

The value of a properly designed and filled in survey card is that it gives the salesman pertinent information about his prospect that he would not otherwise obtain. This information not only enables him to pick the worthwhile housewives on which to center his efforts but is of invaluable assistance when he makes his first call. If a card states that Mrs. So-and-So has a cleaner that is old or not working or if Mrs. Somebodyelse is interested in an electric washing machine, then the problem is a simple one. The salesman rings the bell and states that he is "advertising" the Twin City Electric Company. That this concern, being somewhat new in the city, is offering a special repair service or special terms on appliances for a limited time. Fifty per cent of the repair jobs result in a moderate allowance for the old appliance and in the sale of a new one —according to Mr. O'Hara.

The selling process, once an entrance has been gained, is much the same as that used on a straight "cold turkey" canvass. The point is that this extra, and specific, information which the salesman, unknown to the prospect, possesses and the source of which he does not divulge, gives him a flying start, an advantage estimated by Mr. O'Hara to increase the salesman's producing capacity by 30 per cent.

What It Costs to Obtain 135 Live Prospects

TO PRINT two thousand "survey cards" cost $14. It took two women, at $15 a week apiece, two weeks to fill in the answers on the 592 cards.

This batch yielded 135 live prospects at a total cost of $74 or 54 cents per prospect.

Up to the time this article was written the salesmen who followed up these leads had written a total of $3,600 worth of electrical appliance business from them.

The Valley Electrical Supply Company of Fresno, Calif., selling lamps in successful house-to-house campaign.

7,705 Calls Sell 3,778 Lamps

IT IS NOT usually thought profitable to send a man into the residence district to sell lamps by the door-to-door method. This was done by the Valley Electrical Supply Company of Fresno, California, with such great success, however, that the sale which was originally planned to last three months is to be continued indefinitely. The profits, to be sure, were not reckoned alone on the basis of the lamps which were sold, but careful books were kept on all leads and sales of house-wiring and of other merchandise resulting from these calls, with the result that a very attractive merchandising profit was shown.

87 per Cent of Kitchens Badly Lighted

The lamp particularly featured in the approach was the new 100-watt white Mazda lamp, which was offered as a first-aid measure in solving the problem of kitchen lighting. It had been found by a survey that while 87 per cent of the kitchens in Fresno were equipped with a ceiling flange and flat or cone reflector wall switch and one or more convenience outlets, they were nevertheless inadequately lighted, owing to the selection of too low-powered a lamp. The importance of the kitchen as the housewife's work-room makes it an easy point of approach and with better light once introduced, the sale of a more adequate lighting unit follows later with reduced sales resistance.

Two salesmen handled this work, making use of a light delivery truck which was especially outfitted to meet the requirements. A framed poster graced each side of the machine with picture and legend reading "The New Kitchen Lamp." In addition to samples of this article, sixteen other sizes and types of lamps were carried, including colored lamps for decorative use in the home. These were transported in a small kit which resembled a small fibre suitcase in shape and appearance, but which within was wired with sockets and was provided with a cord for attachment to any outlet. This was so arranged that any lamp could be lighted at will to show contrasts. If the customer wished to purchase any of these lamps, she was given the lamp direct from the case, which was then refilled.

Over 3,000 Lamps Sold in Three Months

For this purpose a complete stock of lamps was carried in the body of the truck from which any demands might be met. During the three months' sale, 3,778 lamps were sold, of which about 3,000 were the 100-watt Mazdas.

Some Figures of the Campaign

DURING the first three months, calls were made on 7,705 houses. Of these, the salesmen were permitted to demonstrate the lamp in 3,143 homes, and 1,987 sales were made. An average of two lamps was sold to each home.

A large quantity of these lamps was also sold over the counter as a result of the campaign, and amounted to twenty per cent of the house-to-house sales.

The basis of the salesmen's approach was the introduction of a new lamp designed to meet the needs of the kitchen. This and the fact that they represented a well-known and reputable firm brought them admission in 50 per cent of the homes visited. The demonstration took only a few minutes. Sales were made to 50 per cent of the homes in which demonstrations were permitted. A tag was made out for every call made on which all pertinent data were noted for future reference.

Average of Two Lamps Sold to Each Home

During the first three months, calls were made on 7,705 houses. Of these, the salesmen were permitted to demonstrate the lamp in 3,143 homes and in these 1,987 sales were made. An average of two lamps was sold to each home. In addition to these sales, a very large number of sales of the 100-watt lamp were made over the counter, the figure actually amounting to 20 per cent of all sold in the house-to-house canvass. Other dealers throughout the city reported also a greatly increased demand for this lamp. It is assumed that these sales were made either to housewives who witnessed the demonstration but who were not convinced at the time or from those housewives who were not at home when the call was made but who were later sold by their neighbors "over the back fence."

It is impossible to estimate the number of electric irons, toasters, grills, fireless cookers, percolators and other appliances which were sold as a result of this campaign, for the reason that most of these purchases were made at the store itself by those who came in at the salesman's invitation but who did not necessarily mention this fact. A cordial invitation was given each housewife to visit the store and to examine some one of the featured displays. Special mention was made of the company's service department and considerable value should be credited to the good will brought about by the personal contact established with each household visited.

Stimulated Appliance, Fixture and Wiring Sales

The 100-watt white lamp was sold at fifty-five cents, which was paid in cash by 83 per cent of the purchasers. Customers were allowed to have the bill charged on request.

In estimating the returns from the campaign, all elements were included. From the sale of the lamps alone, the canvass would not have been justified. That is to say, the actual expense of the canvass was $200 greater than the profit from lamps sold at the house door. In addition, a profit of $105 was made on white lamps sold over the counter which should be credited against the cost of the campaign. Sales of fixtures, appliances, convenience outlets and wiring jobs definitely traceable to the calls made during this campaign bring the figure up to a satisfactory dealer's profit for the event. The element of good will and the effect on stimulating future sales it is impossible to estimate.

The advantages from the power company's standpoint should not be overlooked. It is figured that each of the kitchen lamps installed added fifty watts to the household usage, which would result in an additional revenue to the power company of $3.75 per year. With 3,144 white lamps sold, this amounts to $11,790 increase in lighting revenue to the power company during the coming year.

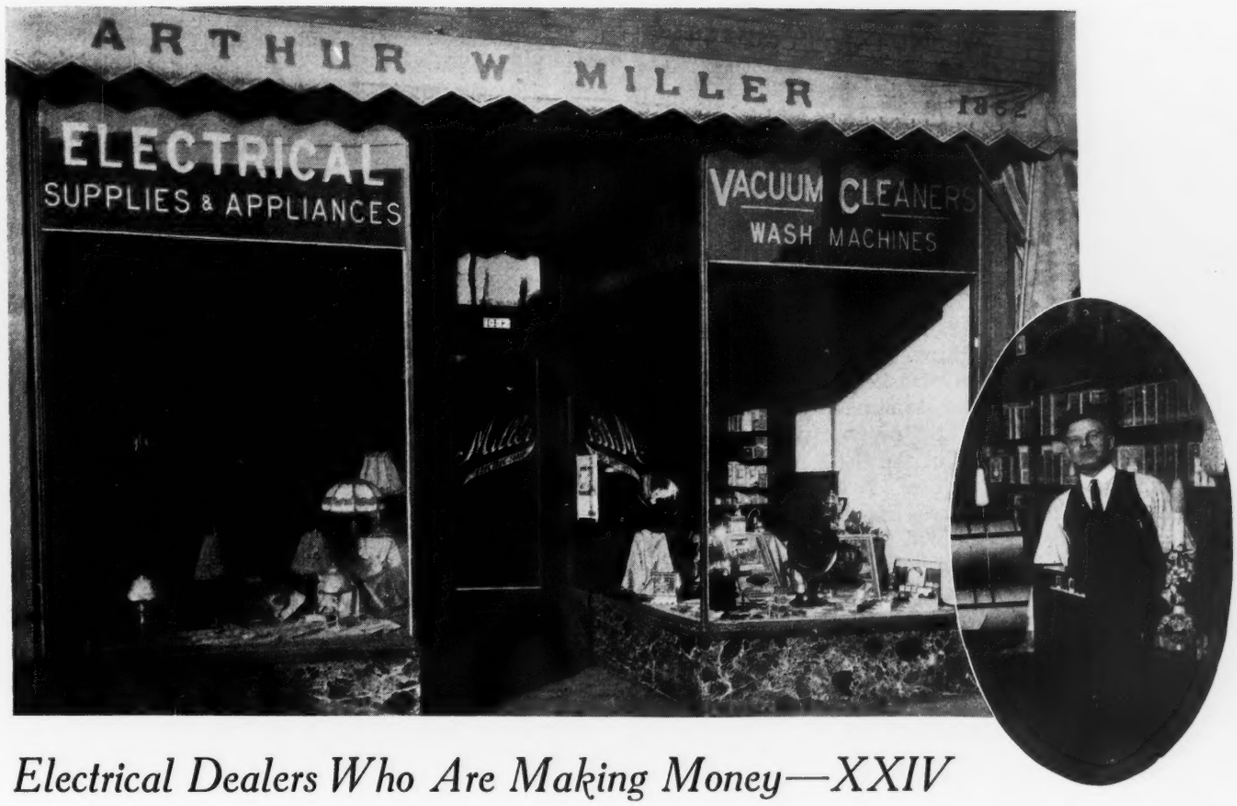
An Electric Appliance Exhibit in Mexico City

A view of the Distributors' Exhibition in the Electrical Show which recently took place in Mexico City. The show was housed in one of the most beautiful government buildings in Mexico City. Many American appliances were exhibited.

Estimates as They Are Made!

Here is an estimate made by a competent estimator using the "43.3 per cent on labor" (see *Electrical Merchandising* for July, 1925), and following it is the same estimate after the head of the firm gets through with it,—as outlined by Charles L. Eidlitz before the New York Electrical Board of Trade:

Materials, actual net cost.....	$5,000
Labor—2,000 hrs. Journeyman at $1.88	3,760
Labor—2,000 hrs. Helper at $1.25	2,500
Actual cost	$11,260
Profit 10 per cent.....	1,126
Submit estimate	**$12,386**
Estimate as presented to employer and what he does to it..	$12,386
Less what can be done to specifications without discovery	1,000
	$11,386
Less effect of volume on year's business	800
	$10,586
Less part of profit on expected extras	1,000
	$9,586
Less advertising value of having this particular job	500
	$9,086
Less saving made by discharge of estimator as unnecessary	450
	$8,636
Less deduction so as to take no chances of losing job.....	500
Estimate submitted	**$8,136**



Electrical Dealers Who Are Making Money—XXIV

How Miller Makes His Neighborhood Electric Shop Pay

By ERNEST BUTT

NOT all contractor-dealers can build a volume of business that runs into six figures. But even a small volume can be made to pay a good profit if the management is careful and conservative, and proper principles of pricing and estimating are followed.

An excellent example of a small business paying a good profit through good management is the contracting and retail-appliance business of Arthur W. Miller whose electric shop is an institution in one of Chicago's older neighborhoods.

The Miller Electric Shop does a gross business of approximately $25,000 a year, with a payroll of $6,500, rent of $1,000, and an advertising appropriation of $500, and on this volume, so well is the business run, that Mr. Miller has been able to erect a two-story flat building, the ground floor of which houses his shop, and practically to pay for it in the space of six years.

Now what are the elements that make for this showing? In the first place, the store is situated in an old, established neighborhood on the southwest side of Chicago, at 1852 W. Thirty-fifth Street. This is about six miles from the downtown district. Its customers are old residents and many homes in this neighborhood have been built by the grandfathers of the present occupants.

Little Transient Trade

Miller has little, if any, transient trade. Pretty nearly all of it can be classed as "neighborhood business." The people know the man, believe in him, and trust him. He is wide awake in the affairs of his community, is an official of the Business Men's Association, and is an active church worker.

"Family trade," so called, is the backbone of any neighborhood business or community undertaking. That's obvious. In Miller's case, all the kids are potential customers for radio equipment; mother buys her appliances there; dad gets his bell batteries, a lamp socket, wire, etc., for the Saturday afternoon odd job; grandma pops in for a lamp to put on her sewing table, and so on. It's a steady stream of business with little seasonal fluctuation.

Second, Miller has no competition to speak of. He serves a square mile of territory without another electric shop in it. Hardware stores nearby carry electrical appliances, but their business in those staples is negligible.

Third, he does no outside selling —with its high selling expense and credit losses. Every sale of electrical merchandise is made right in the store, with one exception: some mer-

chandise is sold outside on leads furnished by the electricians engaged on wiring and fixture jobs in the homes about the community. But the total compared to gross merchandising business is small.

He is his own inside sales force. In spite of the fact that he stays open till nine o'clock four evenings a week, he keeps inside the store most of the time, doing his own clerical work and estimating, and generally supervising everything. When business warrants it, his wife helps. Living above the store, her assistance is handy when needed. Of course, his time is figured as part of the selling expense. So is that of Mrs. Miller. But the advantage lies in that expense being credited right back into the family pocket-book. Accountants will deplore this as unorthodox and a step toward financial chaos, but the fact remains that the Miller family pockets the proceeds.

Handles Very Little Installment Business

Then, Miller does very little installment business, with the accent on the "very." What little he does is on appliances sold to him by the light and power company on a dividend-coupon redemption arrangement.

By this means, the financial load is shifted to the company, who replaces the merchandise in Miller's stock and adds the list price of the article, in monthly installments, to the customer's light bill. Thus, Miller carries no load. He sells his article and pockets his profit at once. At rare intervals, where a large appliance is sold on the extended payment plan, the load is carried by the manufacturer. But, as a general rule, Miller's customers are cash buyers.

On the other hand, Miller pays cash for everything but the exceptions mentioned. He takes advantage, religiously, of cash discounts. And these two and five per cents are part of the answer why he is making money. Figure out sometime the increment on a thousand dollars lent for ten days at two per cent. Multiply the answer by ten, approximately a year's cash discount saving. You'll be surprised.

Everything is sold at list price, one price to everybody. Price tags, in plain sight, embellish every article on display. There are no special cut-rate sales to clean out dead stock because there isn't any dead stock. Miller is a conservative buyer, taking only quantities that will turn over quickly. Consequently, he never gets stuck.

Repairs All Merchandise Purchased at Store

Trade-ins form no part of the Miller sales policy. What is sold is sold at face value.

One policy that has paid steady dividends is that of repairing merchandise purchased at the store. Miller even goes further than the manufacturer's guarantee by keeping merchandise he has sold in tip-top condition long after the guarantee has lapsed. Of course, a regular charge is made for replacing a breakage; but, as a rule, the goods are kept in working condition as long as they hold together. Thus, bread cast upon the waters returns in the shape of good will.

About 60 per cent of Miller's gross business is contracting, meaning about $15,000 a year. He employs two men practically the year round, wiring and hanging fixtures in the old and new homes of the neighborhood.

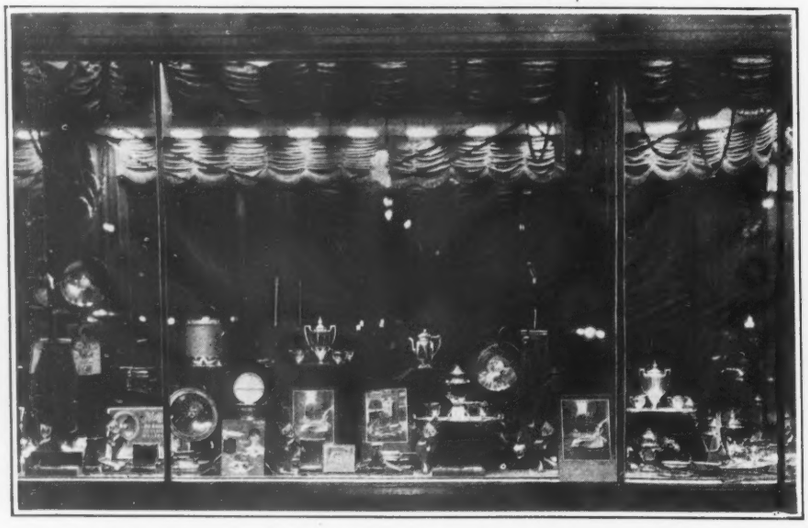
He recently entered the radio field, feeling his way with a few sets, batteries, loud speakers, tubes, etc. "I just want to try it out," Miller stated. "Of course I'll service everything, and I'll increase the stock if business warrants it, but I don't want to go too strong at the start. People out here are somewhat old-fashioned and take none too kindly to innovations. But, I'll do anything to satisfy my people."

The Miller method of publicity is simple. He advertises in two papers, the sheet published by the Neighborhood Business Men's Association and the community weekly. But his ad appears in *every issue* of these publications, meaning sixty-four insertions of his story in the course of a year. Then he advertises in every church and lodge program in his community. Approximately $500 a year is spent in this manner.

The story of the success of the Miller Electric Shop can be summarized in two words: personal contact. Mr. Miller is a mixer in every sense of that small word. Nothing goes on in the neighborhood of which he isn't part and parcel. The folks in the community like him and believe in him and what he sells. He is one of them, taking a place in their daily activities, be it a church bazaar, a wake, or a wedding. "I let no opportunity for business get by me," he said. "I meet the folks hereabout socially, and they instinctively come to me when they want something that I can supply.

Although Miller's merchandise business totals only approximately $10,000 a year, he turns his stock six times in that period. He has only a small shop as shops go (it is 25x50), but his $1,500 stock is tastefully arranged, clean, and well-kept.

"ZCMI," the Official Mormon Electric Shop



A window display in the electrical department of Zion's Co-operative Mercantile Institution at Salt Lake City, one of the first places in Utah to sell electrical appliances. This great store, known far and near as "ZCMI," is of course, the largest and oldest of Utah's retail establishments, having been founded at the time when goods had to be hauled by ox teams from the Missouri River and the journey took from three to six months.

Electrical sales by ZCMI last year showed an increase of 30 per cent over those for the year before. Electric ranges are an important feature of the stock carried. A wholesale business is also conducted for the outlying districts. Electrical sales are in charge of L. Wright.

What the Industry Thinks of Inspectors

Now an Unorganized Police Force but Potentially a Great Factor in Constructive Progress—Definite Steps Suggested to Bring Inspectors and Industry Together

By EARL E. WHITEHORNE*
Contributing Editor, *Electrical Merchandising*

EVERY prominent official of one of the electrical inspectors' associations has frankly asked this question. What does the electrical industry think of the electrical inspector? I am going to answer in the same frank spirit and set down plainly what I find to be the feeling among electrical men. In a word, the electrical industry does not think about the electrical inspector at all. It looks upon the inspector as something quite apart from the electrical industry. And it regards this great body of men in the light of an unorganized police force, that undoubtedly contributes to safety in the use of electricity, but, instead of keeping order, promotes disorder because it is unorganized. But electrical men who have considered the subject at all from the national and industry standpoint believe that the inspector could be made a great constructive influence for progress, and they are disappointed because he is not.

There is no question as to the industry's need of inspectors. All men recognize the vital importance of having an established code to guide the installation of electrical wiring equipment. Therefore, there must be an inspection service to insure the observance of the code. But the electrical men believe that this inspection service should be an active, co-ordinated function of the electrical industry, that the inspector should be something more than a policeman.

Purposes of Inspection

In my opinion the fault lies not in either the intent or the ability of the inspector. No man can criticise the sincerity of these men or their capacity for work. Rather the trouble comes from too limited an objective, too narrow a vision of the purposes of inspection. For both the inspector and the electrical industry have overlooked the fact that there are two very fundamental reasons both for a code and for inspection.

Economic Influence

The prevailing belief is that the sole job of the inspector is to make wiring installations safe. Of course this was the first idea. That is why the fire underwriters first organized an inspection service. These men were told to prevent fire hazards, and they have done a faithful job, as thorough a job as they were able to, in keeping the code safe. But prevention being their responsibility they have naturally leaned over backward and too far, and taken an attitude of prohibition, so that electrical men have come to feel that development and progress in the code can only be achieved through overcoming the opposition of the insurance interests and the inspectors. And being so closely focused on this work of making electrical installations safe, the inspectors have almost entirely overlooked the fact that they have another responsibility of no whit less importance—to make electric installations economical.

"INSPECTORS, in their earnest pursuit of safety, have forgotten the economic responsibility that rests upon them. They have not taken any active part in helping to keep the manufacture, distribution, and installation of electrical products simple as well as safe, from the national and industry viewpoint. And yet I believe that the inspector might have been and may still make himself an outstanding leader in this constructive work."

There is just as great an economic value in a code and inspection service as in its value for the promotion of safety. The economic value of a code and inspection service comes through its influence for the standardization of manufactured products and reduces the amount of duplication and the excess varieties of types and sizes that must be manufactured, distributed, stocked and sold. This means, of course, production in larger quantities and at lower costs. It also means convenience to the public because any lamp will fit any socket and because an appliance may be taken from one house to another and used. It means that men who buy material when they place an order know what they are going to get. It makes it possible for men who install wiring to use material from many sources on the same job, because every manufacturer's product is not dissimilar from every other make. And without a large measure of such standardization the great development of the electrical industry would not have been possible.

Responsibility for Saving

But the inspectors, in their earnest pursuit of safety, have forgotten this economic responsibility that rests upon them. They have not taken any active part in helping to keep the manufacture, distribution and installation of electrical products simple as well as safe, from the

*From an address before the Western Association of Electrical Inspectors, Chicago, Jan. 28, 1926.

national and industry viewpoint. And yet I believe that the inspector might have been and may still make himself an outstanding leader in this constructive work.

The great weakness of the inspector today, it seems to me, is this lack of national co-ordination and responsibility. It is perfectly natural that men's opinions should differ as to whether this method of construction or that material is safest. But it is not possible to maintain an orderly and progressive industry if we permit the fundamental regulation of electrical construction to be arranged in each community to suit the local preference and prejudice, any more than you could maintain an orderly federal government and leave the national laws to be adopted and applied as any community might desire.

Costly Confusion

And, furthermore, it is not necessary—for what is safe in Ashtabula is safe in Oklahoma City. True, conditions differ in different kinds of towns, but under given conditions an electric circuit can be constructed the same way in Seattle or Sioux City, Savannah or Syracuse, and be equally secure. And yet today the rules of the electrical inspector may differ with the landscape or the locality. Consider the safety switch, that much-quoted example of inspection inconsistency. It is an iron box inclosing a switch and fuse—same kind of iron, same kind of copper, same kind of electric current, same sort of human being to handle it. Yet in one place to be officially safe the cover must be hinged at the left, while another state requires hinges at the right, while still another insists on top hinges, and a fourth locality forbids all hinges and demands set screws. A prominent jobber told me once that he was compelled to carry in stock six different varieties of one size of safety service entrance switch to meet the inspection requirements of various cities within the territory he serves. Think of the burden of extra stocks that this entails all along the line and the extra jigs and patterns back in the factory and what it costs.

In a word, the result of this present lack of inspection uniformity in the electrical industry causes a considerable degree of economic pandemonium. The inspector has been saving the public millions of dollars through reduced fire loss, but he has been causing the waste of other millions quite as valuable and as savable by lack of simplicity and uniformity in regulations that have resulted in endless duplication and excess varieties of manufactured products. The reason is that whereas the inspector has been taught his responsibility for safety, he has not been charged with his economic responsibility and he has not been interested in it. But he can be interested in it, and when he is he will render a great service to the electrical industry and to the American people and open up a great opportunity for himself.

That, I find, is about what the electrical industry thinks of the electrical inspector, with whom it has as yet had so little in common. But I am not willing to let the subject rest right here with criticism and no suggestions. I am going to tell you what I think you ought to do. If I were king of the electrical inspectors of America, I'll tell you what I think I'd do first thing. I'd call a great convention of inspectors—have them all there in a great hall—in Chicago or New York—and I would lead on the stage a policeman from the nearest corner. I would say to these inspectors: "Look at this man and consider the case of the 'cop'—how he has changed in the public estimation in recent years. There was a time when a policeman's sole idea was to watch for people who were breaking laws. 'Cheese it, the cop!' expressed the prevailing public sentiment. He represented the power of government and worked purely by interference. Then came traffic, and the policeman took his place upon the crossing to help and not to hinder, and presto! the whole public psychology toward the cop has changed—because the spirit of the officer himself changed once he was given something helpful and friendly to do."

Public psychology toward the cop changed when he started to be helpful

What the Industry Asks

No one could ask that electrical inspectors should be any finer type of men than they are now today, or say that they must have higher principles, but the electrical industry does ask this:

First—That they get a new slant on service.

Second—That they become helpful to the public as well as protective.

Third—That they become something more than the watchdog of electric wiring.

Fourth—That they stop being an offshoot of the insurance business or merely a department of municipal government and organize as one of the great functional branches of the electrical industry, with a progressive program and a constructive purpose.

Fifth—That they co-operate with the other branches of the electrical industry to keep order in electrical construction from the national standpoint and assist in developing the art as well as preserving safety.

And again I think you will say, "All right—but how are we to set about it?" Well, I think if I were king of the electrical inspectors in America, I would set up these eight objectives and work for them—and I submit them to you for your consideration:

First—Organize into a national association of electrical inspectors to tie together all groups and built a national consciousness for the inspector and win for yourselves a position of recognized influence and leadership in the electrical industry.

Second—Become a progressive and creative factor in the development of

the code, suggesting improvements whenever the possibility appears, working conspicuously for simplicity, for flexibility and for economy as well as for safety.

Third — Become the organized champion of orderly procedure in the evolution of the code through the approval of new products and the revision of the rules.

Fourth—Get behind the uniform ordinance that has been developed by the Electrical Manufacturers' Council and work for its adoption in all cities as a practical means of securing uniformity of inspection throughout the land. Here is a great economic contribution which the inspector can make to the American people.

Fifth—Work for tolerance and common sense in the interpretation of the code. Make it the consistent national policy of the inspectors that if two rules are applicable the broader should govern, since both are safe. Establish an ideal of helpfulness in inspecting rather than the spirit of prohibition and autocratic authority that is too often encountered.

Sixth—Take leadership in the encouragement of adequacy in wiring installations, by suggesting to the contractors the benefits that come from more satisfying installations. I think that the inspectors should be out-and-out advocates of the "Red Seal" plan and active supporters of the local league in every community.

Can Help Lower Costs

Seventh—Wield a guiding influence to keep down the cost of electrical installations by discovering, developing, and promoting possibilities for economies both in methods and material.

Eighth—Become the recognized authority on electrical safety. The inspector, being neutral, is the one man who can speak of electrical safety with complete acceptance locally. He should promote public confidence in electricity as much by teaching the public to make their wiring installations safe as by policing the work of their electrical industry.

There has been long-continued controversy among electrical men over the procedure that should be followed in admitting new products for use in electric wiring. The issues involved in this whole question involve many technicalities and traditions, and the average man is apt to be a bit bewildered. It seems to me, however, that under it all stand out these four principles to which any fair mind will subscribe:

1. The National Electrical Code and the National Electrical Safety Code, having been established as American standards under the regulation of the American Engineering Standards Committee, are no longer merely the instruments of the fire insurance underwriters nor the property of the electrical manufacturers, the contractors or the inspectors. Their function is neither to defend established products nor yet to restrict or assist new products, but solely to provide and maintain adequate protection for the American public in step with the advancing art.

ELECTRICAL men believe that inspection service should be an active, coordinated function of the electrical industry, that the inspector should be something more than a policeman.

2. The testing of new materials as acceptable in these codes should be from the sole standpoint of determining the fire or casualty hazard involved in their use when the material is installed in accordance with the code.

3. Specifications for such test should deal with the purpose and the methods of the test, but not with the construction of the material, the issue being not its structure, but its safety and dependability in the performance of it function.

4. New materials should be approached, not for the purpose of proving them good or bad, right or wrong, but by an orderly procedure to determine their fitness for admission for use under the code.

If these four principles were clearly understood and universally accepted, there could be little basis for disagreement over new products. Men would naturally withhold judgment until proper tests were made and then abide by the results. And I believe that the inspectors can bring a helpful guidance here. If the electrical inspectors will unite and do these things and render the continuing services that will naturally suggest themselves, nobody will ever have to ask again what the electrical industry thinks of the inspector. The electrical industry will then be very conscious of the influence and importance of the inspector—and so will the American people.

Causes of 808 Electrical Fires in New York City During 1925

Eight hundred and eight fires of reported electrical origin were called to the attention of the committee on electricity N. Y. Board of Fire Underwriters during the year 1925. It was found upon investigation that four hundred and seventy-seven were attributable to electricity and caused an aggregate loss of $190,450.40.

These fires may be classified as follows:

	Fires	Losses
Contacts defective	1	$16,540
Current entering building over metal conduit, etc., to interior ground connection	12	1,420
Fuse, operation igniting adjacent inflammable material	5	50
Fuse operation (neutral of 3 wire branch circuit)	1	.....
Flexible cord, short circuits and grounds	27	3,125
Grounding of conductors in conduit or in contact with other metal work	30	37,080
Grounds; due to moisture	13	151
Heaters, warmers or pads, left in circuit	6	1,010
Lamps: incandescent, ignition of inflammable material	10	1,700
Motion picture film, ignition at machine in booths	1	100
Motion picture film (miniature type machine not in booth)	1	500
Motors, sparks from	22	1,805
Motor and generator windings	54	8,690
Pressing irons left in circuit (91 in 1922), (68 in 1923), (126 in 1924)	136	66,561
Radio receiving equipment, lightning	1	500
Radio receiving equipment, short circuit of leads from storage battery	10	1,195
Services of Illuminating Co., overhead	8	.....
Short circuits, accidental	13	3,665
Short circuits in elevator cables	6	350
Short circuits in sockets	5	150
Splices defective	56	2,300
Transformer insulation breakdowns, in vaults	9	.....
Volatile liquid or fumes	21	8,850
Automobile storage cell short circuit	4	600
Rheostats defective	1	100
Electric curling irons	2	225
Bell ringer short circuits	2	35
Christmas tree wiring short circuits	13	27,500
Electrically operated toy trains short circuits	5	4,500
Radio broadcasting static discharge	1	1,500
		$190,450

Of the total loss as given above, $144,685 is either directly chargeable to improper maintenance of electrical apparatus or to alterations and extensions made without the knowledge or approval of the underwriters, thus leaving $45,765, as representing the loss from equipments which according to our records, were in satisfactory condition at time of inspection. Of this last amount $31,915 is charged to one fire.

Handling the Repair Problem

Simple Form Kept by the Workman Serves for Building and Record

By CARL G. HOWARD

MANY electrical retail stores operating appliance repair departments discover that profits are eaten up by overhead. This condition may be overcome by using a system which requires very little bookkeeping other than which can be handled by the repairman in charge.

In the case of the Fergus Electric Company, Chicago, Ill., this situation was remedied by the installation of the following simple procedures.

It was the former custom for any clerk to take in repairs and write the customer's name on a common slip of paper. This was frequently lost before the article reached the repair department. Often, the article would be placed in some out-of-the-way place and not taken to the repair department. In the meantime, the customer would have returned for the article only to find that it had not been repaired. But one repairman was required to make repairs under these conditions, as many of the customers did not return the second time.

Centralized Records and Responsibility

Under our system, all repair job costs were kept and accounted in the repair department and the complete bill made out by the repairman in charge. This bill was totaled when the repairs were completed so it could be paid when the article was delivered. Previous experience had proved that the bill was generally somewhere in the office, but never ready when the customer called. This caused a delay and often left a bad impression on the customer.

The heart of the new procedure was the job ticket illustrated. This was made up in pad form without duplicate, as only one copy was needed. These forms were kept in the repair department where all articles were received by the repairman. Notations were immediately made as to the repairs wanted. This prevented any misunderstanding when the repairs were made. This feature is a good part of the plan since some of the customers would complain about the bill and state that repairs were made unauthorized.

Agreements as to repairs to be made were noted in the customer's presence; he then signed the ticket.

When working on the article, if we discovered that other repairs were necessary to make a complete job, the customer was called on the phone for consent. This prevented arguments over bills when the article was completed. This one feature did more to increase our repair department business than any other.

The customer's name was written on a tough manila envelope which was tied to the article, and placed in the "repair" bin. The repair ticket was placed in the repair section of a small and accessible index file.

All Time Entries Made by Repair Men

During the process of repairing, each repairman's time was entered on the ticket, in the labor column, also dates, and materials used. To speed up the making of the bill a complete parts price list was kept in the department. The bill was totaled by the repairman in charge and placed in the envelop attached to the article. The appliance when finished was placed in the "repaired" bin.

A large, "Repairs Strictly Cash," sign was placed in a prominent location so that customers would expect to pay for the repairs upon receiving the article. Each customer paid his bill at the cashier's window. This kept all money out of the repairman's transactions. The paid bill was returned to the department and placed in the "repaired" section of the file for future reference. Customers in good standing were allowed credit when they requested it. The bills to be charged were entered on a regular charge sheet and sent to the office for billing, while the job ticket was marked "charged" and placed in the "repaired" file section. By keeping the repair tickets in file, many a complaint was settled after the article left the shop.

Stock of Appliance Parts Speeds Up Repairs

A good stock of fan, cleaner, iron, washing machine, small motor, and other appliance parts were kept on hand to speed up the completing of the repairs. This soon built up a reputation for us, since almost anything could be repaired at once without waiting for parts.

If, after repairs to the article had been completed, the owner did not call within three days he was notified by phone or mail, or the article was delivered by our truck. This built up good will with the customers as it saved them the trouble of calling.

I believe that if some of the shops now having trouble along this line, will adopt this system and these policies, they will notice an increase in their volume of business and create additional satisfied customers.

THE FERGUS ELECTRIC CO. APPLIANCE REPAIR DEPT. No. 3

NAME James Brown DATE 7-16-23

ADDRESS 72 Tenac Place PHONE Main 7436

APPLIANCE Vacuum cleaner SERIAL NO. 438796

PARTS SHORT Belt Will Call — Deliver yes

PUR. DATE — REC'D BY

REPAIR AS FOLLOWS: Clean, repairs and parts as needed

Signed J. Morgan

Quan.	DESCRIPTION	Resale Each			Labor			
1	Belt	.12		12	C.H.H.	7/16		1/2
2	Felt brush bearings	.10		20	C.P.	7/17		1/2
25'	Extension cord	.04	1	00	W.D.	7/17		1/2
1½	his labor	2.00	3	00				
	total		$4	32				1½ hrs.

REMARKS: Cord worn beyond use, felt brush bearings worn, motor dirty, brushes loose and sparking. Overhauled completely

Form 19-2M-3-24

This form used by the Fergus Electric Company, Chicago, Ill., eliminates a great many of the possible delays, misunderstandings, and improper billings, in connection with the repairing of electric devices. It provides for all the information necessary to the efficient handling of any repair job.

Eighteen per Cent More Outlets in Average Job

Results from One Year's Operation of Red Seal Plan in Syracuse, N. Y. How Adequate Wiring Helps to Increase Lamp and Appliance Sales

THE birthday of the first Red Seal license in the United States occurs on March 24, 1926. This is the anniversary of license number one which was issued to the Syracuse Electric League on March 24, 1925. To get a picture of what this year of Red Seal License has produced for the contractors of Syracuse one of the editors of *Electrical Merchandising* interviewed the thirty-one contractor members of the Syracuse Electric League for a first-hand account of their experience and opinion with this activity.

The consensus of opinion was enthusiastically favorable to the Red Seal plan and the work of the Electric League.

There have been forty-three Red Seal Homes wired in Syracuse. Doubtless there would be many more if it had not been for unfavorable labor conditions which have interfered with the construction of numerous buildings. The adoption of Red Seal by a large number of builders and owners is shown in the numerous plans, now being submitted for bids, which embody Red Seal specifications. Another marked result of the Red Seal campaign is the general increase of outlets and switches on all residences now being built. This brings up again a highly important element in checking Red Seal results: the greatly increased number of outlets per job even when full Red Seal specifications are not accepted.

The Syracuse Electric League launched the Red Seal advertising campaign on May 10, 1925, with a full-page advertisement showing the first five Red Seal homes in Syracuse. This ad was titled "Make Yours a Red Seal Home." Since that time a series of ads have carried the picture of each new Red Seal home as completed in an advertisement entitled, "Another Red Seal Home." On this ad goes the name of the builder and the name of the electrical contractor.

"It is comparatively easy to sell the Red Seal plan," says Harvey Smith, secretary of the Syracuse Electric League, center of Red Seal energy and general live wire. "The builder adopts it because it helps him sell his house. With a little salesmanship the owner can be sold the idea."

How to Sell Red Seal

This "little salesmanship" is a specific and most successful sales method of Mr. Smith's. In talking to a home builder, he discusses the furnishing. He arranges the furniture for the owner in a way to provide the greatest comfort and lays out switches and outlets in relation to the daily uses of the family and to provide the greatest convenience. The home builder goes along with him in every step and when he is through the house is up to Red Seal specifications. On one job for instance by this emphasis on wiring for convenient use Smith raised a job from 35 to 52 outlets with the enthusiastic assent of the owner.

Syracuse has not only the first Red Seal license, but the first Red Seal home in the United States. This home having the pledge card A-1 dated April 13, 1925, was wired by Millard S. Wright, an electrical contractor of Syracuse, N. Y.

There were installed in this home twenty-eight ceiling outlets, sixteen bracket outlets, 30 convenience outlets, fourteen single-point switches and seventeen three-way switches.

Since this start there have happened many interesting and profitable instances as recited in the following by Syracuse contractors.

Bids Only Red Seal on Good Houses

One morning, a general contractor called at the shop of C. U. Haverley, an electrical contractor in Syracuse, N. Y., and requested that he bid on a job which was under construction. The plans and specifications revealed the house to be of a very fine type with the best materials used in construction. As is often the case, however, the wiring specifications called for an incomplete electrical installation.

"What this job needs is Red Seal wiring," said Mr. Haverley.

The contractor, having heard of Red Seal, replied, "No, nothing like that. It costs too much, and besides there are plenty of lights allowed in the plans which don't have to be laid out to suit a bunch of electrical contractors."

"Well, sir," replied Mr. Haverley, "as you know, the Red Seal plan makes it possible for the owner to have a correctly-wired house without being the victim of a lot of hard competing electrical contractors and builders. I refuse to bid on this job or any other job of this quality unless the plans are made to meet the Red Seal requirements."

Dumbfounded at the idea of an electrical contractor refusing to bid on a job of his, the contractor went back to see the owner.

In a couple of days, the contrac-

Why Women Want Red Seal Wiring

"THERE is nothing that adds quite so much distinction to fine furniture as to be able to alter its position occasionally.

"A shift of small details in a room, such as lamps, chairs, etc., keeps up interest in the appearance of the home and impresses callers.

"With sufficient outlets, I will be able to shift my furniture at will."

Comment of a Syracuse Housewife

tor returned and said that Haverly might bid on the job according to Red Seal specifications. However, his competitors were not figuring on Red Seal.

Regardless of competitive conditions Mr. Haverley placed his bid, carefully figured to allow sufficient outlets and switches as specified by the Red Seal plan.

In a week's time the owner called and informed Mr. Haverley that his bid was being held, while all others were thrown out requesting that they bid on a Red Seal installation.

"What made you change your mind?" asked Haverley.

"When the bids were opened we found yours to be $98 higher than the next highest bid. Owing to this big difference we figured that Red Seal must amount to something and on further investigation we were satisfied as to its value. Hence the Red Seal specification."

The owner of one house wired by E. W. Norton of Syracuse, N. Y., could not at first be interested in a Red Seal installation. "Too busy" was his excuse.

However his wife did have the time and the Red Seal plan was explained to her. She realized the value of the conveniences offered. After the house had been wired up to the full specification and a Red Seal on the meter board she explained the reason:

"There is nothing that adds quite so much distinction to fine furniture as to be able to alter its position occasionally. A shift of small details in a room, such as lamps, chairs, etc., keeps up an interest in the appearance of home and one's callers leave with the pleasing thought that it is a place which never grows old. With sufficient outlets I will be able to shift my furniture at will."

Survey of the Last Twenty-nine Red Seal Installations in Rochester

Red Seal Number	Light Outlets		Switches		Convenience Outlets	
B. Rochester	Required by Red Seal	Actually Installed	Required by Red Seal	Actually Installed	Required by Red Seal	Actually Installed
B-21	32	41	21	25	27	33
B-22	15	18	15	16	19	19
B-25	15	21	11	16	12	14
B-29	16	21	16	16	18	20
B-30	19	21	16	16	15	15
B-31	22	29	16	20	20	26
B-32	16	22	16	16	17	18
B-34	16	21	14	16	19	19
B-37	16	18	16	16	19	19
B-38	20	22	17	17	20	18
B-41	8	8	7	7	8	8
B-43	25	31	19	19	23	25
B-44	24	32	19	23	21	23
B-45	20	21	17	17	21	23
B-46	19	21	16	16	21	24
B-47	23	24	19	19	22	24
B-48	29	32	21	22	28	25
B-49	24	41	19	21	24	34
B-54	18	31	17	21	21	29
B-55	20	23	18	19	23	24
B-56	17	21	18	18	22	25
B-63	16	21	14	15	12	17
B-64	15	20	13	14	10	12
B-65	21	32	15	26	24	23
B-66	14	19	15	15	16	19
B-67	13	13	12	13	15	15
B-68	15	23	13	30	18	26
B-70	16	23	15	16	13	15
B-71	18	21	16	16	17	18
	542	691	461	523	545	610
	149 or 27.49 per cent more than required by Red Seal Plan.		Sixty-two or 13.44 per cent more than required by Red Seal Plan.		Sixty-five or 11.92 per cent more than required by Red Seal Plan.	

The Red Seal specifications adopted by the Electric League of Rochester increased by 15 per cent the average number of outlets being installed in high class homes.

So successful has been this Red Seal program that the results of a survey recently made indicates that the Red Seal specifications in a large number of recently built homes have been greatly surpassed.

This survey covers the last twenty Red Seal homes wired in Rochester and shows the effect of this activity. The average increase in outlets and switches is 29 to 46 per cent over the high standard prevailing in Rochester before the adoption of the Red Seal.

Red Seal Proves Big Asset in Selling the House

Continual sales work by C. U. Haverley had their effect on a Syracuse general contractor who builds about twenty-five houses a year. After repeated efforts to get this man to install Red Seal wiring he gave his consent for a Red Seal installation in one of his best houses on the condition that Haverley did not again ask for Red Seal work.

Using the utmost care to avoid mistakes or trouble the wiring was installed. When the building was completed, the photographer was called and a picture taken of the building. The contractor noted this and asked why it was being done. It was explained to him that a picture of the house would appear in the newspaper. The contractor's name as builder and the name of the electrical contractor would be placed in the advertisement run each week by The Syracuse Electric League.

Another general contractor believed that Red Seal was becoming so popular that unless he had his houses wired on the Red Seal plan, he would not be able to sell them so he tried it on one of his better quality buildings.

One day after this particular house was finished and on the market the contractor was at the office of his real estate agent when a lady came in to inquire about the house. Among the various items mentioned was the fact that it was a Red Seal home. The lady asked what Red Seal meant and the agent went into a detailed explanation taking up a large part of the sales talk.

The lady was well pleased and said she was glad that there was at last some way to be sure that a house was correctly and adequately wired. And she bought the house.

Red Seal Is Greatly Approved Wherever Used

The contractor was so well satisfied that he now has Red Seal wiring in all of his better grade homes. An average of the electrical work in the contractor's houses shows that there are 40 per cent more outlets and

switches installed now than before he adopted the Red Seal plan.

Many other instances are related of how a builder is converted to the Red Seal plan by demonstrations of the fact that the public wants better wiring and is willing to pay for it.

Wherever Red Seal has been installed in Syracuse as elsewhere, it is met with the highest approval. Each home wired under the plan is showing a larger number of people its many advantages, operating as a selling focus from which the better wiring idea radiates.

One of the largest realty companies in Syracuse has under way a plan to build a number of certified homes. On each building will be placed a tablet showing that it is of the finest quality that can be built. With each home will be a certificate from every sub-contractor showing that the finest materials were used. The electrical contractor will furnish the buyer with a certificate showing that Red Seal wiring was installed.

Red Seal Sells Appliances

A Red Seal house was wired by G. W. Wood of Syracuse. Care was taken in placing the outlets where they could be used to the greatest advantage. A Duplex outlet was placed in the mantel a little to one side of the center so it would not interfere with a center object on the mantel such as a clock. This resulted in the sale of two small lamps suitable for use on the mantel. This party also bought two table lamps, two boudoir lamps, a floor lamp and a desk lamp. As a result of an outlet under the window in the kitchen, a window exhaust fan was installed

Although the Garrett Electric Company of Syracuse, N. Y., has kept no definite check on the appliance sales from Red Seal installations, they have reason to believe that the additional outlets are responsible for the purchase of numerous appliances. On one of their Red Seal homes the owner asked what he could use a certain outlet for. When he was told that it could be used for a dishwasher he immediately became interested in a dishwasher.

A Red Seal house wired by Kenneth Culver of Syracuse had eight convenience outlets in the living room. One evening when Mr. Culver called on the owner of the house he found all the eight outlets in use connected to new table lamps, bridge lamps, floor lamps, reading lamps, etc. Mr. Culver installs dishwashers in practically all of the Red Seal homes he wires.

It is often possible after the contract has been placed for the contractor to increase the number of outlets. C. U. Haverley obtained a job which called for fifty-nine outlets. He persuaded the owner to install the wiring according to the Red Seal plan, increasing the number of outlets to eighty-eight. On another instance he increased a job from fifty-five to sixty-five outlets, making it a Red Seal installation.

The plans of a job wired by E. W. Norton called for fifty-three outlets. When it was finally decided that he could wire it according to Red Seal specifications seventy-two outlets were installed.

W. A. Miller increased a job from forty-eight outlets to sixty-two outlets by selling the Red Seal plan to the builder.

The Garret Electric Company after receiving a contract sold the Red Seal plan to the owner, increasing the wiring installation from an original figure of $188 to $335.

J. Isaacs installed another Red Seal job by selling eight outlets, increasing the job from fifty-three outlets to sixty-one.

Recently many plans have been submitted for bids on which the electrical specifications have been fully up to the requirement of the Red Seal plan. This shows that a number of builders and architects are learning the meaning of the Red Seal specification and are applying it in laying out plans. For instance, H. Kliman recently wired a house where he found it unnecessary to add any outlets to make it a Red Seal job.

J. M. Wood, L. A. Newman, K. Culver and G. Hamilton have each wired homes of which the specifications were fully up or surpassed the Red Seal requirements, with no increase in the wiring shown on the original plans.

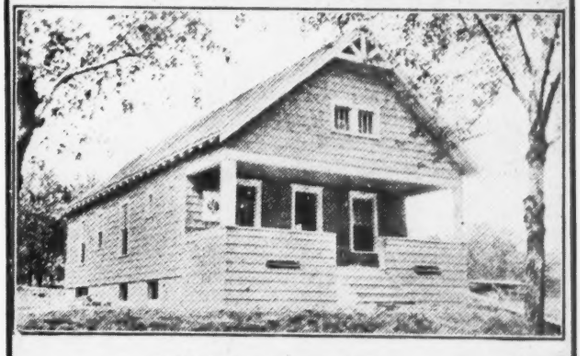
In many cases the wiring of a house can be made Red Seal by adding one or two outlets. J. L. Johnson reports a job made Red Seal by increasing the original plans one outlet. Forty-six outlets made one Red Seal home wired by C. U. Haverley, the plans of which called for forty-five outlets. W. R. Simmons recently increased the number of outlets from 49 to fifty making it a Red Seal job.

The owner of one Red Seal house, wired by Kenneth Culver, was particularly interested in the three-way switches required on the stairway light. Before the job was completed he had fourteen sets of three-way switches installed in various parts of the house.

Nearly every electrical contractor reports a decided increase in the number of outlets installed in all jobs as a result of the Red Seal promotion work. According to C. U. Haverley, a recent check shows that an average of 18 per cent more outlets per job were installed during the year 1925 than in 1924.

The results obtained in Syracuse from this first year of Red Seal promotion shows that aside from the number of Red Seal homes that the desire for more adequate wiring has been awakened.

ANOTHER RED SEAL HOME



131 Maplehurst Ave.

Builder
F. L. SCHOPFER
1700 Court St.

Electrical Contractor
W. G. MILLER,
102 Chatham Place

For RED SEAL Wiring Information Apply

The Syracuse Electric League, Inc.
433 SOUTH WARREN ST.

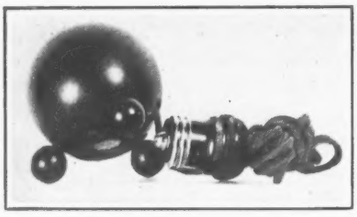
Local Red Seal homes are advertised every week by the Syracuse Electric League, and it has been found that new homes with wiring up to Red Seal specifications sell very quickly.

New Electrical Merchandise fo

Combined Cigar Lighter and Paper Weight

Electrical Merchandising, March, 1926

Made from Bakelite in plain red, plain green, and marbleized mahogany is the combination cigar lighter and paper weight manufactured by the Aldrege Company, 81 John Street, New York City. The heating unit on the under side automatically lights when the ball is turned upside down. When the ball is in normal position the unit is invisible and unlighted. This device, which operates from any standard 110 volt lighting socket, either a.c. or d.c., retails for $5.



Wall Type Radiant Heater

Electrical Merchandising, March, 1926

The permanently installed wall type space heater manufactured by the Majestic Electric Development Company, 1705 Allegheny Avenue, Philadelphia, Pa., is specially designed for use in the bath, and to this end is finished in both white enamel and nickel plate. The reflector is of solid copper, and the single heating element, consuming 615 watts, which is guaranteed for one year, is made for use with 110 or 220 volts. List prices are $20 and $25 for the nickel and white enamel styles, respectively.

Porcelain Convenience Outlets

Electrical Merchandising, March, 1926

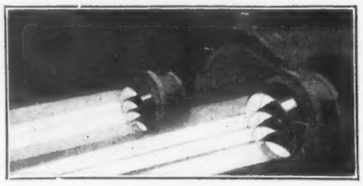
A new line of black porcelain convenient outlets with plain faces has been brought out by Harvey Hubbell, Inc., Bridgeport, Conn. The smooth, highly glazed face of this outlet is slightly recessed to guide the attachment plug cap blades into the T slots, though the face is otherwise unmarked. This new outlet is made in the shallow side wired type, both single and duplex, and is designed to replace the Hubbell outlets of the same general type, but with marked faces.

Cleaner With Many New Features

Electrical Merchandising, March, 1926

The most outstanding of the many new features incorporated in the new "Greater Hoover" No. 700 cleaner is the "positive agitation" which has been secured through changes in the old motor-driven brush. Rigid steel beater bars have been substituted for the soft hair brush, to which fell, formerly, practically the entire burden of dislodging embedded grit. The steel beaters curve around a cylinder, and open up the nap of the carpet, beating loose the embedded dirt. Set straight across the agitator, as the beating unit is now called, are two brushes of soft goat hair. These brushes sweep away the clinging type of dirt, such as thread, lint and hair. The brushes are held in place by spring latches so that they can be removed and replaced when, in time, they become worn.

The machine also incorporates a newly-designed motor and fan. The bag is new in structure and appearance and all metal parts of the machine have polished finish. The cleaner is somewhat lower in height, to permit free use under beds and furniture. The handle is equipped with a pistol grip and has a trigger switch. The cord is rnu through the handle, and a separable plug, which clips into the lower end of the handle, makes the connection between cord and motor. The adjusting screw regulating the nozzle to different thicknesses of carpet locks itself into place even though the operator forgets to do so. A new control shifts the handle from restricted to free position with a mere downward pressure by the foot on the control device. The retail price of the Model 700 Hoover is $75.



Automobile Headlight Reflector

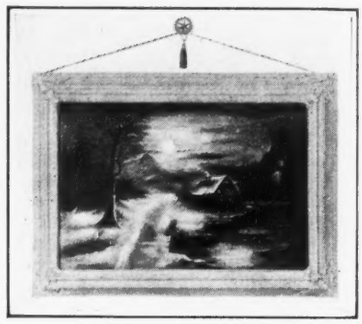
Electrical Merchandising, March, 1926

"Ever-Brite" is the name of a new headlight deflector brought out by the Akron Specialty Manufacturing Company, Akron, Ohio, by means of which dimming of headlights is not required. It consists of four elliptical visors which deflect the headlight rays toward the road, deflecting across the road all the light rays which would otherwise go up. The deflector is easily attached by removing the lens and rim from the headlight and placing it inside the rim where it is held fast by a flange. Fitting as it does in front of the lens, the deflector, the manufacturer points out, does not interfere with any state lens laws. Intended retail price, $3, $3.50 and $4 for set of two.

Picture Wall Light

Electrical Merchandising, March, 1926

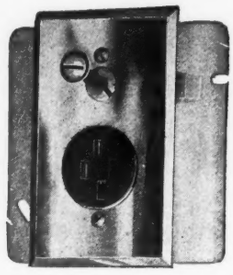
"Moonlight Road" is the title of the picture illustrated which, in appearance, looks like an oil painting, but which is, however, a wall lamp, providing a soft, transparent light. The picture, of which there are 150 different pictorial numbers, is hand-painted "Crystalline" and is known as the "Velvo Glace Wallight Lamp." It may be had in different sizes, from 8 x 12 to 18 x 28, with a retail price range of about $13 to $25. The Wallight comes equipped with 20-ft. silk cord, plug and canopy switch. The manufacturer is the Columbia Woodturning Company, 1800 South Canal Street, Chicago, Ill.



Fan Outlet

Electrical Merchandising, March, 1926

The new No. 661 fan outlet of the Russell & Stoll Company, 53 Rose Street, New York City, is made to accommodate any of the standard attachment plug caps now in use. Any standard 4-in. square outlet box with standard raised cover may be used. Although designed primarily for use with electric fans, the fitting is also well adapted for glow heaters and for individually illuminated picture mountings. Picture can be hung on supporting screw, concealing the receptacle outlet, cord and hangings. The intended list price of the fitting complete is $2.25. The brass .060 in. plate only is 55c.



High Voltage Detector

Electrical Merchandising, March, 1926

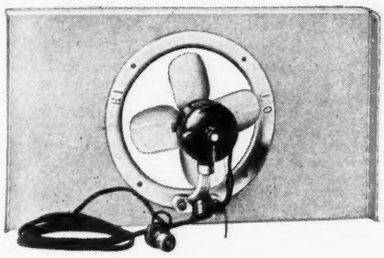
To ascertain or indicate high voltage current in transmission lines, transformers, switchboards, X-Ray apparatus, broadcasting stations, etc., the Radio Electrical Works, 23 Union Square, New York City, has developed a "Hyvo" high voltage detector. The "Hyvo" uses the property of neon gas which causes it to glow when a most minute amount of electric current passes through it. Although only one electrode is used, the indicator, it is explained, will give a penetrating red-orange glow. It operates from 1,000 volts up. Two types of indicators are available—No. 1, for portable use and No. 2, for stationary use, as a warning indicator for high voltage. For use on inaccessible parts, No. 1 can be mounted on a pole. Intended price, No. 1, $4; No. 2, $2.50.

for Early 1926 Buying Season

Portable Room Ventilating Unit

Electrical Merchandising, March, 1926

Hi Lo portable room ventilating units, so called by the manufacturer, the Hi-Lo Products Company, 53 West Jackson Boulevard, Chicago, Ill., because of their efficiency at both high and low speeds, are adjustable in ten minutes to any standard size window frame. Advantages of this fan as stated by the manufacturer are low current consumption, absence of any dead spots in the column of air ejected by the ventilator, and small size with high efficiency, the unit being capable of exhausting almost six hundred cubic feet of air per minute at the rate of 24 cubic feet per watt. The 8½ inch model TS 8 fan shown here weighs 17 pounds prepared for shipping, and is priced at $35.00, net.



Electric Refrigerator

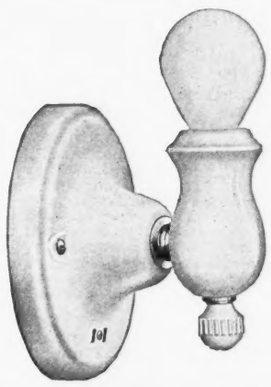
Electrical Merchandising, March, 1926

Sanat Refrigerating Company, 331 Madison Avenue, New York, has placed a self lubricating automatic electric refrigerator on the market having thermostatic control and using chloric ether as a refrigerant. The compressor, which is double acting and reciprocating, is driven by a ¼ hp. motor through a worm gear. Model S11 above is 40 in. wide, 21¾ in. deep and 62 in. high. It is made of oak flush panel on the outside, with the inside of porcelain on armco iron, and insulated with 2 in. cork board. Finishes are white or oak. Sanat is made in other sizes, or can be installed in the customer's box.

Propeller Type Fan

Electrical Merchandising, March, 1926

In its new No. 5 fan, the B. F. Sturtevant Company, Boston, Mass., points out, there has been developed a fan that maintains its high free delivery efficiency against an appreciable pressure. At the wide-open point, says the company, this fan develops a mechanical efficiency of 52½ per cent. Other desirable characteristics are the flatter horse-power curve and the steeper pressure curve. The motor is quiet running, it is explained, has oiling bearings, is conservatively rated and enclosed to protect the windings from deterioration by dust, fumes, grease, etc. The Sturtevant tripod support is the method of mounting the motor. At present the fans are available in sizes No. 4 to No. 9 and for horizontal electric drive only. The motors can be furnished for single phase, alternating current, 60 cycles, for 110 or 220 volts; and in polyphase currents for 60 cycles at voltages of 110 to 550.



Porcelain Bath Bracket

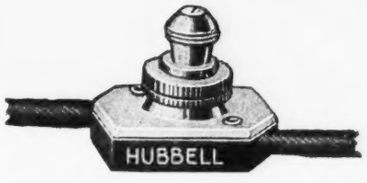
Electrical Merchandising, March, 1926

Four stages of light intensity, controlled by the knurled porcelain knob pendant at the base of the bracket, are a feature of this bath fixture manufactured by the Wirt Company, Philadelphia, Pa. The bracket is made of fine white porcelain, oval in shape, and comes either with or without convenience outlet, convenient for attaching boudoir appliances. The list price, with outlet, is $5.50; without convenience outlet, one dollar less.

Angle Three-Way Current Tap

Electrical Merchandising, March, 1926

Added to the Reynolite Masterpiece line of molded convenience fittings, made by the Reynolds Spring Company of Jackson, Mich., is the exceptionally light three-way angle tap, here illustrated. The finish is the lustrous brown characteristic of Reynolite products.



Canopy Switch

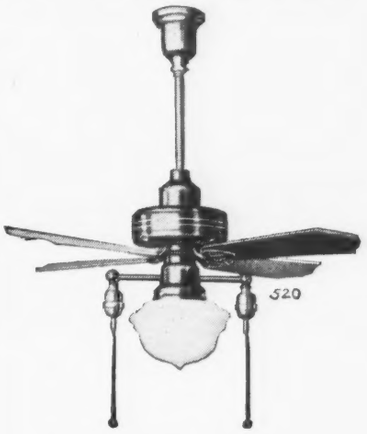
Electrical Merchandising, March, 1926

Small, compact and neat in appearance is the new canopy switch announced by Harvey Hubbell, Inc., Bridgeport, Conn. It is designed for fixture work and is particularly suitable for side wall canopies and brackets. The handle may be turned in either direction without danger of unscrewing. The switch can be quickly and easily installed and the handle does not have to be removed when installing. The switch is made with three different lengths of stems, with $\frac{3}{16}$-in. stem, with $\frac{5}{16}$-in. stem and with $\frac{7}{16}$-in. stem.

Ceiling Fan and Lighting Unit

Electrical Merchandising, March, 1926

To the new Style "L" a.c. ceiling fan the Robbins & Myers Company, Springfield, Ohio, has added a lighting unit adaptation equipped with three-speed pull switch for fan and single pull switch for light control. In case of wall control for either the fan or light, or both, the switch arms are not required, in which event the holes are closed with removable plugs. The lighting unit may be adapted to various Style "L" fans.

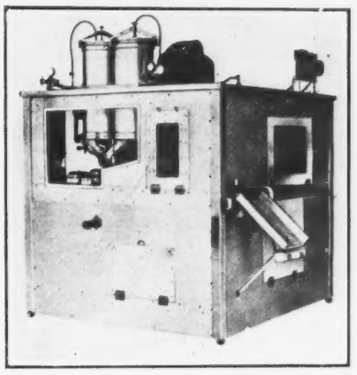


Electric Doughnut Machine

Electrical Merchandising, March, 1926

Five thousand doughnuts an hour is the capacity of the new all-electric doughnut machine brought out by the Doughnut Machine Corporation, 1170 Broadway, New York City. The machine performs all operations of cutting, frying, turning, ejecting and conveying the finished doughnuts automatically, producing a uniform product and eliminating odors.

The entire machine, with the exception of the blower which furnishes compressed air, is operated by a ½-hp. G. E. motor.



Complete Listing of Hunter Fans for 1926

9″	Non-oscillator A.C.	$10.00
9″	oscillator, black	$14.50
9″	oscillator, dark bronze	$16.50
12″	non-oscillator	$23.00-$24.50
12″	oscillator	$30.00-$31.50
16″	oscillator	$35.00-$36.50
12″	exhaust fan	$29.00-$30.50
16″	exhaust fan	$32.00-$33.50
52″	ceiling, non-adjustable, oxidized copper	$52.00-$54.00
52″	ceiling, adjustable blade, oxidized copper	$55.00-$57.80
32″	ceiling, dark bronze	$40.00

To Help You Select Electrical Merchandise—

One-Light Bracket

Electrical Merchandising, March, 1926

But one number of the new eighteen-piece residental fixture line of The Miller Company, Meriden, Conn., is here illustrated. The new line, furnished in a dominant Spanish-Italian effect, is designed to be used with the new Mazda lamps and is offered with a new series of Ivanhoe shades. The fixtures are carton-packed and will be distributed in accordance with the Ivanhoe policy through appointed jobbers, with a complete program of dealer selling helps. The new line is now in production.

Cigar Lighter

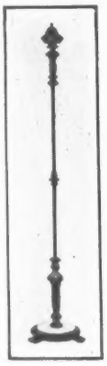
Electrical Merchandising, March, 1926

All metal with a bronze finish is the electric cigar lighter made by Frankart, Inc., 225 Fifth Avenue, New York City. Cabby Jed (cabbage head) has a red nose for a push button to light the heating element in the crown of his hat. Price, complete with six feet of cord, $5.

Floor Lamp With Canopy Switch in Base

Electrical Merchandising, March, 1926

Within easy reach is the switch of a floor lamp made by the Art Specialty Company, 805 South Eleventh Street, Philadelphia, Pa., for it is incorporated in the base. The lamp is a two-light metal lamp with Italian marble insert, and just above the base, where the ornamental section ends, is the canopy switch controlling the light.



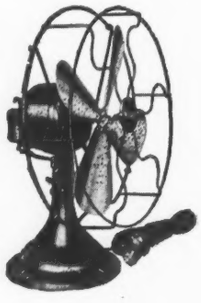
10-Inch Three-Speed Oscillating Fan

Electrical Merchandising, March, 1926

To fill a popular need for a low priced three-speed oscillating fan, Wagner Electric Corporation of St. Louis has developed a 10-inch fan that retails at $16.50, and that compares in quality of materials and workmanship with its larger and higher priced line.

The fan is powered with a well-insulated, well-ventilated Wagner induction motor, cool and quiet in operation, having no brushes or commutator to wear out. Bearings are of bronze. The three speeds are regulated by a lever switch in the base. The fan oscillates in an arc of 90 degrees, and a bracket joint permits a forward tilt of 22½ degrees, with clamps to hold it at any desired angle. This permits the fan to be used for either desk or wall mounting.

The blades of the fan are of polished brass; the body is finished in dull black; and an 8-foot abrasion-proof cord with a two-piece plug is included.

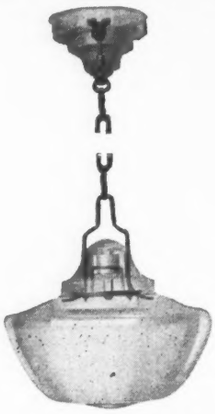


Safety Holder for Commercial Fixtures

Electrical Merchandising, March, 1926

The Moe-Bridges Company, Milwaukee, Wis., has developed and is now manufacturing a new safety holder for commercial installations. It operates on the gravity principle, the glassware being securely held in place by three supporting members which lock it from the inside. The shell of the holder is perfectly smooth, being free from slots or any clamping devices. The holder is made in both 4-in. and 6-in. sizes and in both pendant and ceiling types.

Another new Moe-Bridges product is a stemless canopy which, it is pointed out, is easy to install, is attractive and secure. Since the canopy can be dropped down over the chain, it permits of easy accessibility for splicing and inspection. This new canopy will be supplied on practically all the company's pendant-type fixtures without additional cost.



Boudoir Lamp

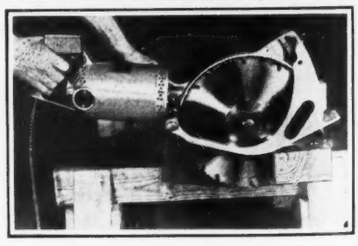
Electrical Merchandising, March, 1926

Specially designed to accommodate the new type General Electric incandescent lamps is the handsome boudoir lamp made by the Aladdin Manufacturing Company of Muncie, Ind. This company is changing the designs of many of its lamp styles to accommodate the new mill type and G. E. lamps.

Expansion Shield

Electrical Merchandising, March, 1926

The Star Expansion Bolt Company, 147 Cedar Street, New York City, is marketing an expansion shield device, the "Dryvin," of interest to the electrical contractor. The device is an expansion shield, the top flange of which holds the load. The nail, as it is driven home, expands the metal, this expansion securely locking in the lower flange of the shield. The "Dryvin," the manufacturer points out, is adapted for practically every purpose that requires an attachment to masonry carrying a load up to 1,200 lb. Various sizes of the device, for all practical uses may be had.

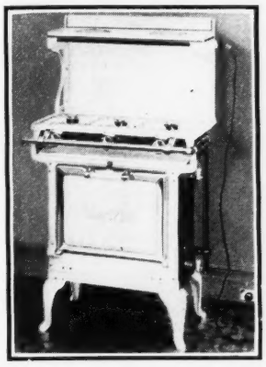


Electric Safety Saw

Electrical Merchandising, March, 1926

A portable electric safety saw has been introduced by The Crowe Manufacturing Company, 133 East Third Street, Cincinnati, O. The body of the tool is of aluminum, the motor, a General Electric universal, supplied according to specifications, either for 110 or 220 volts. The largest size cuts to a maximum depth of 4½ in., in but a fraction of the time required to do the job with the ordinary hand saw. The quickly interchangeable blades, either for cross cut or rip sawing, are made of tempered crucible steel, treated throughout the entire blade. The automatic guard is so designed as to render absolute protection to the operator against injury.

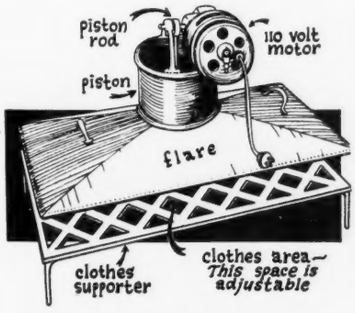
Latest Developments Gathered by the Editors



Small Electric and Gas Range

Electrical Merchandising, March, 1926

For the small home and the modern apartment there is a small kitchenette range, of white porcelain, combination gas and electric, made by the Champion Stove Company, 4001 West Twenty-fifth Street, Cleveland, Ohio. The range may be operated from any convenient outlet, and no special wiring is required. It has two cooking lids for electricity, consuming 660 watts each and three for gas. Two Diamond H switches give three heats for electric cooking. The intended retail price of the range, with broiler, is $90; without broiler, $84.50. Wilcolator oven heat control may be had at small additional cost.



Piston Electric Washer

Electrical Merchandising, March, 1926

A new model piston type washer made by the Fem Company of Portland, Ore., has been lately introduced. In standard parts and washing process the new machine is identical with the inclosed cylinder type Fem washer. It differs in that it is a unit designed to fit over the standard laundry tub or tray. The flares are adjustable to fit any size tub, whether rectangular or circular, a feature which enables the washer to handle a larger wash than any ordinary family size machine. The retail price of the washer is $40.

Mirror Display Sign

Electrical Merchandising, March, 1926

To direct the attention of passers-by to window display or sales message, the Smith-Hecht Company, Indianapolis, Ind., has brought out its "Mirro-Lite" sign. It is made with a transparent mirror and an illustrated, colored, pyralin slide behind it, which when lighted flashes any given advertisement to the public. When automatically flashed off, the sign is transformed into a perfect mirror. The display is built with a gold frame and its extreme outside dimensions are 10½ by 14 in. The sign is shipped ready for use from any a.c. or d.c. circuit.

Flexible Fixture Hanger

Electrical Merchandising, March, 1926

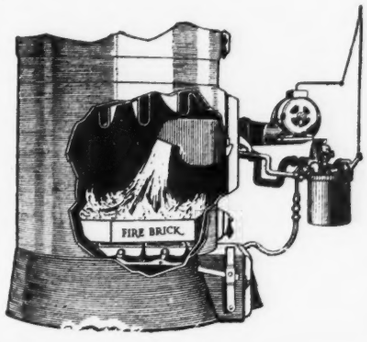
Several advantages are claimed for the suspension type fixture, equipped with a universal suspension joint, manufactured by the Crouse-Hinds Company of Syracuse, N. Y. The freely self-adjusting joint permits the fixture always to hang plumb, prevents breaking the stem at the point of suspension due to wind or other strains, and makes it possible to mount the unit even against the surface of a steeply sloping ceiling. The type ALC hanger shown is for supporting suspension type fixtures with ½ inch conduit stem. It is listed at 75 cents and is packed 25 to a standard package whose weight is 65 pounds.

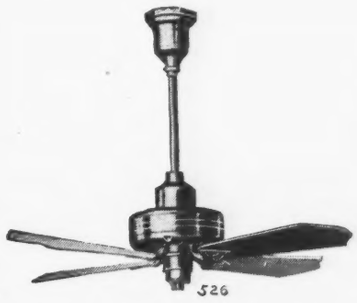
Oil Burner

Electrical Merchandising, March, 1926

Without removing the grates or otherwise disturbing the furnace, the "In-the-Door" oil burner of the Economy Heat Unit Company, 1625 Hennepin Avenue, Minneapolis, Minn., can be installed in any heating plant. There are only three working parts,—the vaporizing chamber, the electric Sirocco blower and the combination safety and control valve. An Emerson motor is used. No inconvenience to the user is caused should the electric current or the oil supply be interrupted, since a fire can be built, using coal or wood in the regular manner. No gas pilot light is required, a "high and low flame burner" being used.

This type of furnace is specially suited for use by those who do not own their own homes as it can be easily removed from the furnace door and transferred with its portable tanks to any new location. Intended price of burner, $175.





A. C. Ceiling Fan

Electrical Merchandising, March, 1926

The Style "L" fan of the Robbins & Myers Company, Springfield, Ohio, is a new development of the smaller type of induction fan for 50- and 60-cycle circuits. Its large blade area at high speed, the manufacturer explains, displaces an unusually large volume of air for this size fan. The four wooden blades are the same as those used on the company's Style "J" fan and the R & M blade reversing scheme is also featured. A three-speed indicating snap switch is attached to the oil cup at the bottom of the motor, within a protecting collar. Customer can, when desired, mount three-speed pull switch in place of the snap switch. The fan is finished in semi-gloss baked black enamel with gilt lines on the motor, while the blades have polished mahogany finish. Intended retail price, $42.50, 110-volt type; 220-volt fan, $44.50.

Plural Outlet or Socket Tap

Electrical Merchandising, March, 1926

The manufacturer of the socket tap here illustrated, the Beaver Machine and Tool Company,, 625-643 North Third Street, Newark, N. J., calls attention to various refinements in the design of the outlet that are not at first apparent. It permits the light to hang directly downward, allows the use of standard shade holders without interfering with the accessibility of the special outlets for attachment plugs, and is itself easily entered into a lamp socket because of the absence of the first thread from the special metal shell. The circular ridges about the tap slots facilitate the entrance of attachment plug blades. The device is packed in individual cartons, ten of which are included in an attractive orange and black counter display. The intended retail price is 50 cents.

Cut Glass Switch Plate

Electrical Merchandising, March, 1926

Optical glass, which is free from the greenish tinge that characterizes demi-plate or window glass, is used in the manufacture of the flush switch plate made by the Crystal Switch Plate Corporation, 32 Broad Street, New York, N. Y. This company now furnishes cut glass plates to fit all standard type switches, push button, and toggle, and to fit both duplex and single outlet receptacles.

Hydro Electric Shops Operating Costs Show Net Profit

In the November issue of "Electrical Merchandising" the analysis of "The Cost of Doing Business by sixty-three Central Station Electric Shops" included figures from nine Hydro Electric Shops in the Province of Ontario. Referring to the average net profit of 1.3 per cent there shown for the Hydro Electric Shops, it was stated that "no administrative expense was charged against these operations, otherwise the net profit shown would become a loss." The figures were those published by the Hydro Electric Power Commission and analyzed by S. J. Ryan, consulting editor, distributed in accordance with the classification adopted for this analysis. It now appears that administrative expense was included in these figures but was distributed under other heads. We have asked the Hydro Electric Power Commission to reclassify the figures according to the form used in order that any misapprehension might be corrected. The letter and figures as reclassified by the Hydro Electric System follow:

Editor, *Electrical Merchandising*:

We have taken our statistics and re-classified them wherever possible to suit the classification into which you have thrown the figures from across the border. It was not possible, however, without a great amount of trouble and inconvenience to stick absolutely to your classification, for the reason that there is no strict uniformity in the classification of expenditures by the different Hydro Shops in Ontario, because of the different nature of employment of some of the men engaged in Hydro Shop merchandising.

Sometimes the manager of the utility is also the manager of the Hydro Shop. Sometimes the chief accountant acts as the Hydro Shop manager. In some municipalities a regular Hydro Shop manager is operating, and on this account it is not always possible to have the distribution of salaries made on a uniform basis.

Furthermore, even where definite employees are engaged they do not allocate salaries to suit your classification altogether. For instance, under "Selling Expense" in most cases are included the salaries of the manager or part manager of the shop. This does not hold in all cases, and it might seem paradoxical to so state when our own classifications, as indicated by the pamphlet sent to you some time ago, distinctly instructs Hydro Shop employees how to divide their time. It is through lack of knowledge or carelessness that this classification is not strictly adhered to, and when we remember that the classification is only a suggestion it is excusable to have differences crop up.

Economy Necessary

However, we believe that the figures submitted by us this time are a fair indication of sound administration, and while our average "Administrative Expense" is very low, as compared with U. S. figures, it is so because of the necessity for economy caused by the low margin of profit we are able to secure from manufacturers of appliances in Ontario. This is indicated by the difference between 20.9 per cent and 31.1 per cent gross profit figures.

It might be interesting also to note that under the item "Other Costs," the bulk of the figures in our statement covers interest on investment, something which does not appear in your figures.

We thank you for your attitude and willingness to correct any errors that have been made, and trust that no harm has been done by the original statement that went out.

HYDRO-ELECTRIC POWER COMMISSION OF ONTARIO
F. A. Gaby,
Chief Engineer.
Toronto, Ontario, Canada.

A Group Study of Domestic Lighting Bills

The Kansas City Power & Light Company has just completed a tabulation which averages the monthly electric bills of a group of twenty-five customers who live in residences or apartments of from three to ten rooms. Every customer in each group used electric lights, one or more major appliances and an *electric range.*

The lighting rate for the first five kilowatt-hours per room is 7.5 cents; for the next five kilowatt-hours per room, 5 cents and for all additional current used during the same month, 2.5 cents.

Here is the average of 25 customers' monthly bills per group:

3 rooms	$3.64
4 rooms	3.85
5 rooms	4.68
6 rooms	6.19
7 rooms	8.08
8 rooms	9.15
9 rooms	9.45
10 rooms	9.89

Sales, Profits, and Operating Costs for Nine Hydro Shops During 1924

A Net Retail Sales		B Cost of Merchandise Sold		C Gross Profit		1 Occupancy Expense		3 Selling* Expense		3 Publicity Expense	
Dollars	%	Dollars	%	Dollars	%	Dollars	%	Dollars	%	Dollars	%
37,235.64	100	32,151.94	86.3	5,077.70	13.7	600.00	1.6	1,797.13	5.1	285.90	0.7
139,000.00	100	108,144.04	77.2	30,855.96	22.2	11,000.00	8.0	9,478.07	6.8	2,706.53	2.0
35,779.56	100	28,199.79	78.8	7,579.77	21.2	1,353.52	3.5	2,451.31	7.0	616.60	1.7
170,000.00	100	134,018.12	78.3	5,981.88	21.7	3,000.00	1.8	17,141.48	10.1	3,370.58	2.0
17,263.00	100	12,981.20	75.2	4,282.75	24.8	1,200.00	7.0	1,800.00	10.4	214.83	1.3
43,148.62	100	35,975.68	83.3	7,172.94	16.7	300.00	0.7	2,461.05	5.7	122.36	0.3
230,019.80	100	180,108.82	78.3	49,910.98	21.7	3,000.00	1.3	28,127.21	12.3	3,105.47	1.3
177,209.94	100	140,826.45	79.5	36,383.49	20.5	2,400.00	1.3	22,479.51	12.7	5,754.62	3.3
38,666.52	100	30,949.71	80.0	7,716.81	20.0	1,200.00	3.1	3,296.95	8.7	626.68	1.6
888,324.03	100	703,361.75	79.1	184,962.28	20.9	24,053.52	2.7	89,032.71	10.0	16,803.57	1.9

4 Administrative Expense		5 Servicing	6 Other Costs†		7 Total Costs		Net Profit (—indicates loss)		Average Inventory at Cost	Turnover
Dollars	%	%	Dollars	%	Dollars	%	Dollars	%	Dollars	
634.08	1.7	2.8	1,228.40	3.2	4,548.32	12.3	529.38	1.4	10,567.91	3.0
2,067.63	1.5	.....	3,321.55	2.3	28,573.78	20.6	2,282.18	1.6	10,407.72	10.7
1,043.54	3.0	15.32	534.40	1.6	6,014.69	16.8	1,565.08	4.4	8,112.25	3.4
6,190.05	3.6	.....	5,409.14	3.2	35,111.25	21.2	870.63	0.5	36,620.88	3.8
300.63	1.8	.....	424.68	2.3	3,940.14	22.8	342.61	2.0	2,511.10	5.1
791.75	1.9	.....	510.71	1.1	4,185.87	9.7	2,987.07	7.0	2,885.24	12.5
3,387.49	1.4	.....	8,273.03	3.6	5,893.20	19.9	4,017.78	1.8	32,451.88	5.7
3,947.59	2.3	.....	3,475.23	1.9	38,056.95	21.5	—1,673.46	—1.0	19,321.62	6.4
158.96	0.4	.....	724.68	1.8	6,007.27	15.6	1,709.54	4.4	7,318.48	4.0
18,521.72	2.1	18.13	23,901.82	2.8	172,331.47	19.5	12,630.81	1.4	130,197.08	5.4

* "Selling Expense" includes, in some municipalities, part of administration expense caused by charging sales managers' salaries to sales salaries instead of general officers' salaries. In any event "Administration Expense" is charged to Hydro Shops in some form in every municipality whose operation is shown above.

† Other costs comprise mostly interest on investment.

Electrical Merchandising *Pictorial*

A Monthly Picture Section of Sales Ideas

PERSONAL attention to every customer is the policy of The United Electric Light and Power Company, New York. How this personalized service increases sales and good will is shown on this and the two pages following.

These photographs were taken in the new United store at 166th Street and Audubon Avenue, New York City, through the cooperation of Ralph Neumuller, advertising and merchandising manager of the company.

AS the customer enters the show room, she is greeted by the supervisor and directress of sales who inquires if she cannot have some of the beautiful appliances on display demonstrated to her.

The customer, pleased with this attentiveness is easily interested in a toaster (featured in March). When the sale is made, the saleswoman while wrapping the toaster inquires courteously if the customer is in need of lamps and lights one of the lamps on the display rack as a psychological measure. She also suggests that the

"The Friendly Store"

Increased sales to pleased customers by "personalized" selling in the stores of the United Electric Light and Power Company, New York

(*Continued from preceding page*)

customer visit the third-floor lamp studio as the company is holding a special sale of table and floor lamps and the customer would be interested in looking over the display of a very complete line.

On the first floor, the customer has been shown to the elevator and on reaching the third floor is greeted by the chief saleswoman of the lamp department. The friendly and attentive attitude of the store has had its affect on the customer and this third exponent of company courtesy has no difficulty in learning that the customer is interested in new lamp shades. Here in the department devoted to shades the customer comfortably seated is shown the extensive line.

These cases not only keep the exquisite silk shades in perfect condition but they permit an individual or collective showing with proper illumination.

INTERESTING groupings of home appliances on the main floor attract the attention and interest of the housewife who is on her way to pay her light bill. Tables of the monthly special in heating appliances are temptingly arrayed with price cards showing the low payment terms. Specialists explain

and demonstrate the sewing machine, washers, ironers and electric refrigerator.

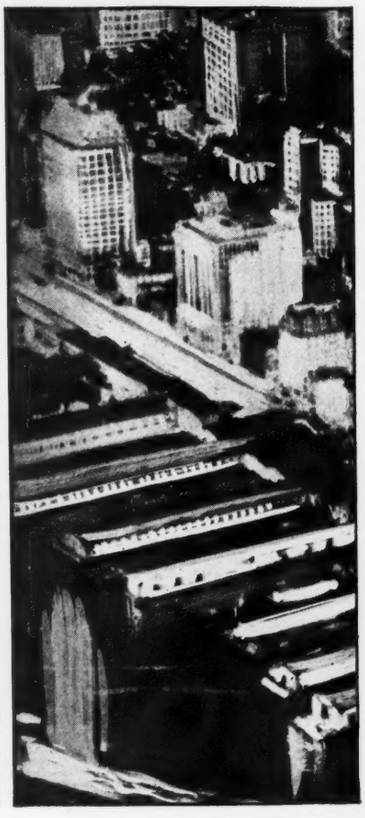
STRATEGICALLY located at the point of exit and entry is the vacuum cleaner demonstration table. Here, as everywhere, are attentive, well-trained saleswomen.

The customer shows her interest in the cleaner and receives an expert demonstration. Behind the demonstration table is a carpeted space where the customer can try the cleaner herself. Here also is a specially constructed case where a variety of different makes of cleaners with their attachments are ready to be shown.

It is easy to see why store sales are high with the United company. Intensive advertising creates a spirit of neighborliness and brings large numbers of customers into the stores where display is large, varied and tempting and sales effort is continual without ever being obtrusive or insistent.

As the customer leaves the store the Directress, with a cordial "Thank you, come in again," leaves with the customer the feeling of a smiling, attentive, personal service from a friendly company.

Approximately One half



Not only did Eureka outsell all competitors in this great market last year, but—according to conservative estimates—Eureka sales equaled and very probably exceeded the COMBINED total of the 70 competing "makes"

In the Greater New York area are located 10% of the entire nation's wired homes, which means 10% of the electric vacuum cleaner market. Conservative estimates place the 1925 total sales of the entire electric cleaner industry at 950,000 units. On this basis, Greater New York purchased approximately 100,000 cleaners of all "makes."

And of the total of all cleaners sold in this congested area, 54,000 were Grand Prize Eurekas.

Results so astonishing in the nation's greatest market again illustrate and emphasize the tremendous preference of the buying public for the Grand Prize Eureka—a preference that has resulted in making Eureka the world's largest producer of electric vacuum cleaner units.

To dealers in the major home appliances these facts can have but one meaning: that there is no substitute for the Eureka franchise from the standpoint of either volume or profit for any dealer who wants to make the most of his electric cleaner opportunities. Write or wire the factory for an interview with our nearest sales manager.

EUREKA VACUUM CLEANER COMPANY, DETROIT, U. S. A.

Largest producer of Electric Vacuum Cleaner Units in the world

Canadian Factory, Kitchener, Ont. Foreign Branches: 8 Fisher St., Holborn, London, W. C. 1, Eng.; 58-60 Margaret St., Sydney, Australia

(265)

The Grand Prize

EUREKA VACUUM

Results"!

There are three definite reasons why more Sunnysuds are being sold in Washington than any other make of electric washer.

1. **A distinctly worth-while product at a distinctly lower price.**
2. **The active effort of a good dealer—(which he has found justified by the owner's satisfaction, extremely low service expense, heavy volume of sales, and satisfactory *net* profit.)**
3. **Sensible, business-like sales support by the factory organization.**

Unless you are able to express your satisfaction as Mr. Marsh does, we sincerely feel that real benefit can result from your learning more about the Sunnysuds product and plan.

A Company Official—(not a salesman)—will be glad to discuss the matter with you as a business proposition. 116

SUNNY LINE APPLIANCES, INC., DETROIT, MICHIGAN

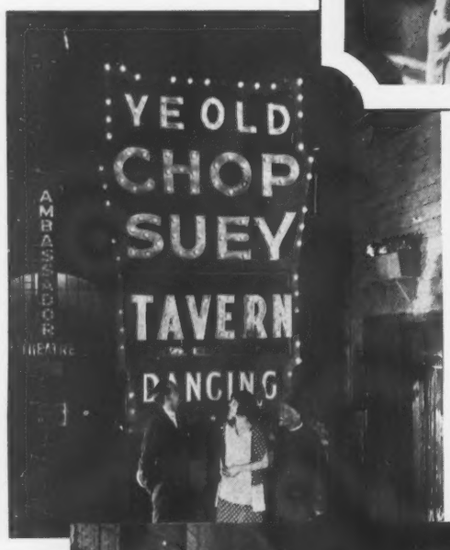
Canadian Factory: **Onward Manufacturing Company, Limited, Kitchener, Ontario**

suds Electric Washer & Wringer

The Electrical Salesman as a Movie Hero

THE effort of a central-station salesman to sell better electric lighting to an old fashioned town has been woven into a story filmed as "The Live Wire." Johnny Hines plays the part of the salesman for the Meadville Lighting Company.

Johnny first gets the lighting company to replace the broken sign of the Elite Café free of charge, and then proceeds, by this example, to sell the remaining dealers in the town. When he comes to the local movie house, he decides that the name "Gem" has too few letters and therefore few electric lights; and convinces the owner to change the name of his theatre to "Ambassador."



For the same reason Chop Suey is enlarged to Ye Old Chop Suey Tavern and by playing on the theme of competition, this live-wire salesman lands even the pawnbroker for better lighting and an electric sign.

Electrical Merchandising
The Business Magazine of the Electrical Trade

believes with E. W. Lloyd that:

"You can't sell kilowatt-hours without some kind of merchandise on the end of the wire."

Why Present Utility-Stock Prices Demand Aggressive Appliance-Selling Effort

Electric-utility stocks are today at an unprecedented high level of prices. In many cases these levels are not substantiated by either earnings or book value.

Sweeping reductions in the prices of utility stocks seem inevitable, in the opinion of many bankers, unless company earnings are increased in volumes that justify these high security prices.

Increased earnings by utility companies can be accomplished only by increased sales of electrical service and equipment.

The industrial load offers no further large opportunities for increase.

The residence field, however, presents tremendous opportunities for expanded revenues. The present average consumption of the industry's 14,500,000 customers is 365 kw.-hr. per annum per residence. This can be increased by ranges, refrigerators and other appliances to 500 kw.-hr. as in Cleveland and Detroit, 672 as in Buffalo, 1,000 as in communities having large cooking loads, and even 4,500 as is the average for a completely electrified small home of eight rooms. An immediately increased revenue of $500,000,000 yearly is available from this residence field.

Unless such increases in earnings are shortly effected, utility stock prices may recede to their former values and the investing public may lose millions. An aggressive load building campaign would therefore seem imperative on the part of the utility companies.

Growth of Time Payment Selling No Cause for Alarm

DURING the last few months the subject of installment selling has been widely discussed in the business and financial world. Trade associations have investigated or are investigating the practice, at least one association, The National Retail Hardware Association has declared against it, and such responsible and conservative publications as the New York *Evening Post* carry articles with such heads as "New Dollar Down Gospel of Thrift Real Danger."

Any accurate figure as to the total of installment sales and the amount of money outstanding on this type of credit is difficult if not impossible to obtain. The attempts made to estimate this total vary to an almost fantastic degree. For instance, in *Advertising and Selling Fortnightly* of January 27, an editorial quotes an estimate of 1925 installment purchasing of $10,000,000,000; *Liberty*, issue of February 20, in a head line puts the figure at $8,000,000,000. A study recently issued by the United States Chamber of Commerce quotes an estimate made by the Farmers' Loan & Trust Company, New York, which gives $3,293,411,878, as the 1924 installment sales and supplements this figure by the following note: "there is no doubt but that this total will be very much larger for 1925 and certain authoritiies estimate that it will reach and possibly exceed $5,000,000,000."

Now there is a *difference of five billion dollars in these estimates* and the question of how much of a menace installment selling threatens to business and financial stability would depend on which of these figures are accepted as being closest to the actual total.

As near as it can be checked by production figures on automobiles, musical instruments, home appliances, furniture, jewelry and other merchandise usually sold on time, the estimate of $5,000,000,000 given by the Farmers' Loan & Trust Company appears closest to the fact. Comparing this figure with gross retail sales of $40,000,000,000 for 1925 it appears that one dollar of goods was sold on time to each seven dollars of merchandise sold for cash or on short term credit, a relation which by no means indicates a misuse of installment buying.

Never before in history has the average man had so large a margin over his actual necessities as today in the United States. The average wage is now 137 per cent higher than in 1914 while the average cost of living has increased but 78 per cent over the same period.

We are living in a time of unprecedented economic prosperity which is not confined to a few but shared by the whole people. The public are buying automobiles, home comforts, electrical conveniences and many luxuries because the general income warrants it.

Installment credit is a legitimate device to make credit available to every person whose income justifies credit. Like everything else it can be overdone and may now be overdone in some trades. So far as the electrical trade is concerned the intrinsic value and low depreciation of the merchandise sold on time is a strong element of safety. And with reasonable care in extending this as any other credit the electrical merchant may well take a calm view of the installment situation and continue to increase his selling effort.

Delegating Responsibility

NO INDIVIDUAL should be expected to carry, unassisted, the double responsibility of managerial duties and of maintaining store efficiency. This is obvious and yet many retail merchants, even today, are not delegating the degree of authority and responsibility to their employees that they should. A considerable step in the right direction is made when every clerk in the store is responsible for some definite duty. The best men can be appointed as "store efficiency monitors." Give them a typewritten list of things to watch for. Some of the principal things this list should cover are: store arrangement, stock placement and appearance, handling stock, store methods and system, display ideas and so on.

The task of management is distinctly one for the "big boss" to assume. There are many other important jobs about the place, however, that would be better done if delegated to some trustworthy employee.

How to Estimate a Frame Construction Apartment House

Third of a Series of Articles on Estimating Methods Applicable to the Principal Classes of Work Which the Electrical Contractor is Called Upon to Figure

By J. W. HOOLEY
Contracting Electrical Engineer, New York City

IN THE former articles, we considered wiring of two residences; one fireproof and the other non-fireproof; and pointed out the added cost of wiring a fireproof construction.

In this article, we will consider the electric wiring of a non-fireproof apartment house.

In this type of construction, we generally find the walls of brick or masonry, and the floors and partitions of wood beams, and studs. This construction calls for the use of B.X. cable as a standard in lighting, and the bell and telephone work is usually run in rubber covered wire.

In this particular job, there are four 4-room apartments, and two 3-room apartments on each floor, and the basement is fitted up with janitor's apartment, boiler room, storage space, and service station.

The meters are all located in the basement in a room for this particular purpose, and always acces-

DATE Feb, 10 — SCALE 1/4" = 1 FT
ENGINEER
ARCHITECT E.M. Jones — ESTIMATE TO E.M. Jones
MADE BY R.O. — TYPE OF BLD'G Apartment House — VOLTS 220 / 110 A.C. D-C
SIZE OF BLD'G 66 x 100 — SERVICE By Lighting Co.

FLOORS	Ceiling Outlets	Side Outlets	Base Receptacles	Floor Receptacles	Switches	½" Conduit	¾ Conduit	Panels and Cut Outs	Circuits	
						B.X.				
4	33	12	28		26	1800		6	12	
3	33	12	28		26	1800		6	12	
2	33	12	28		26	1800		6	12	
1	31	12	28		26	1800		6	12	
Base.	20				8	600		1	4	
TOTAL	150	48	112		112	7800		25	52	

QUANTITY			MATERIAL	LABOR
150	Ceiling Boxes	.15/.15	22 50	22 50
272	Side Boxes	.20/.15	54 40	40 80
	Fixture			
	Studs			
7800	~~¼ Conduit~~ 2 Wire B.X #14	.05/.05	3 90 00	3 90 00
1000	~~¼ Conduit~~ B.X Fenelk	.01	10 00	—
110	B.X ~~Locknuts~~ and Bushings	.05 Panel	5 50	
1000	B.X ~~Tape Wrapped~~		5 00	—
	Circuit Wire No.			
	Circuit Wire No.			
	D. P. Switches			
112	S. P. Switches	.50/.50	56 00	56 00
	3-way Switches			
112	Base Receptacles	.50/.50	56 00	56 00
	Floor Receptacles		5 99 40	5 65 30
	Light Receptacles			
	Drop Cords			

MAINS AND FEEDERS

FEEDER NO.		MATERIAL	LABOR
24 apts	1500 ft 3 Wire B.X #14 .08/.05	75 00	75 00
	150 B.X straps .005	75	
	48 B.X connectors .05	2 40	
		78 15	75 00

Memoranda Taken from Plans and Specifications for Use in Estimating Above Job

Estimate to E. M. Jones, architect.
Scale: ¼ in. Walk-up apartment house.
Wood floors and stud partitions.
Three- to two-wire, 220-110 volt a.c., single phase.
Service in building by lighting company.
All meters in basement furnished and set by lighting company.
All circuit work, B. X. cable.
Cutouts, panel, plug fuses in each apartment. Allow two circuits to each apartment. Allow 1-3 wire B. X. feed to each apartment from meter in basement.
All material standard N. E. C.; and submit all materials for approval at completion of building; deliver to architect scale drawings showing all electric work, circuit arrrangement and details.
Electric fixtures furnished and installed by others.
Master telephone and letter box sets in vestibule connecting with each apartment.
Door opener with push button in each apartment.
Each apartment has hall push button, and bell also, dumbwaiter bell and button, return call.
All bell work—rubber covered wire, double braid.
Bell work—bell ringing transformers.
Telephone work—duplicate set dry batteries.
All work concealed.
All work guaranteed for one year.
Standard contract, 85 per cent monthly. Final, thirty days after completion and delivery of certificates.
Job start in about sixty days.
Owner good pay.

sible to the meter reader and inspector. The meters are furnished and set by the lighting company; and in this case, the lighting company brought the service into the room; though in most cases, the contractor is expected to do this.

A Separate Feed to Each Apartment

A separate feed runs from each meter to each apartment, terminating in cutout box, and the circuits run from cutout box to outlets. The number of outlets is such that two circuits are required in each apartment.

The telephone system consists of a telephone in each apartment, with a master 'phone and letter box for each apartment, located in vestibule.

A door opener at inside door of vestibule is operated by a push button in each apartment. A push button and bell for janitor's apartment, and a push button and bell in each hall for each apartment, is standard equipment.

A Return Call Bell System on Dumbwaiters

A push button for each apartment at the foot of each dumbwaiter to ring bell in each apartment, and a button in each apartment to ring bell at the foot of dumbwaiter, comprises the bell work.

Care in Making Telephone Installation

Care should be given the bell and telephone work, as these systems will give trouble if not properly installed, and will cost the contractor time and money in repairs. The soldering and insulating of all joints and splices should be done as carefully as in lighting work. Due to the low voltage of these system, a poor contact at any point will quickly develop into trouble.

Unit Prices and Ratios for This Job

150 Ceiling outlets.
48 Side outlets.
112 Base receptacles.
112 Switches.
26 Telephones.
55 Bells.
97 Push buttons.
1 Door opener.

601 Total number of outlets.

Bid—$3,365 ÷ 601 outlets = $5.60 per outlet.
Building 66 ft. long x 100 ft. wide x 60 ft. high = 396,000 cu.ft.
$3,365 ÷ 396,000 cu.ft. = $.0085 per cu.ft.
Ratio of labor to material:
Total cost of material = $1,161.10.
Total cost of labor = 1,041.30.
$1,041.30 ÷ $1,161.00 = 89 per cent.
The basis of labor has been estimated at $10.50 per eight-hour day for mechanic, and $7 per eight-hour day for helper.

INDICATE SYSTEMS FIGURED ON THIS SHEET

Telephone & Letter Boxes			
2 Phone & 12 letter boxes	96 00	25 00	
24 Wall phones	144 00	48 00	
500 ft #18 R.C. Wire	20 00	50 00	
2 sets of dry batteries & cabinet	25 00		
	285 00	123 00	
Bell Work			
55 Bells .45/	24 75	15 00	
97 Push buttons .40/	38 80	30 00	
1 Door opener 5.00/	5 00	3 00	
10,000 ft 18 R.C. Wire	40 00	100 00	
1–6 volt transformer & cutout	5 00	5 00	
Tape, solder etc.	10 00		
	123 55	153 00	
Panel Cutout			
25 Steel boxes Each with 2 ckt cutout & fuses-3 wire main 2 Wire branch	75 00	125 00	

		MATERIAL	LABOR
circuit Conduit Work		599 40	565 30
Feeders and Mains		78 15	75 00
Service or Generator Cables			
Switch and Panel Boards		75 00	125 00
Fixtures			
Lamps			
Bell Work		123 55	153 00
Public Telephone System			
Private " "		285 00	123 00
Clock System			
" "			
Engines			
Generators			
Motors			
Pumps			
Foundations			
Board and Carfare			
	Totals—M. and L.	1161 10	1041 30
	Total Labor	1041 30	
	Bond and Inspection	50 00	
	Total	2252 40	
30%	Overhead Expense	675	
	Cost	2927	
15%	Profit	438	
	Bid	3365	

Above Estimate Checked by A.P
Contract Closed by A.P
Date Closed March 3
Date Work Started March 10
Date Work Completed Oct. 15

If lost, state why

Code Questions and Answers

Discussion of Wiring and Construction Problems—Nationally-Known Inspection Authority Answers Queries of "Electrical Merchandising's" Readers

By VICTOR H. TOUSLEY
Chief of Electrical Inspection, City of Chicago
Member of Electrical (Code) Committee, N.F.P.A.

Grounding Secondaries

QUESTION: In the next issue of "Electrical Merchandising," will you kindly explain the various benefits derived from grounding secondaries, both for the light companies and the consumer. Why does the code require the grounded wire connected to the screw shell of the socket? Why does the code require a ground wire at the service if the secondaries are grounded at the transformer?

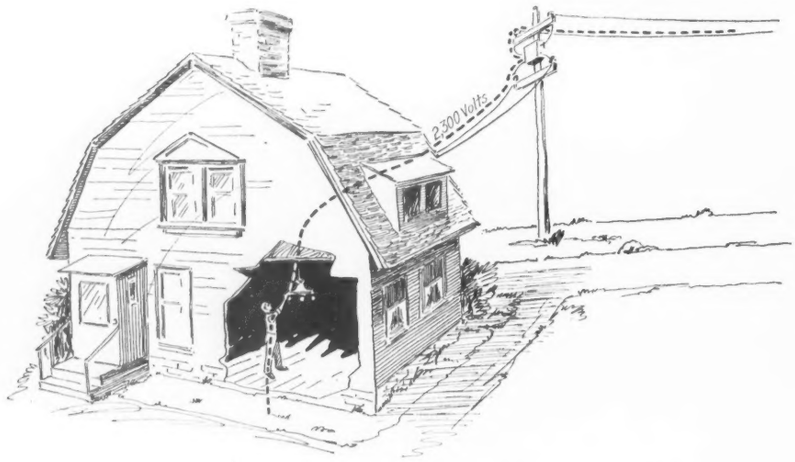
ANSWER: Briefly stated, the benefits derived from the grounding of secondaries are: protection against high voltages entering a building on the secondary; keeping the voltage to ground of the secondary system at a minimum.

The prime reason for grounding is to protect the secondary system in case of a breakdown between the primary and secondary winding of a transformer. When a cross occurs between the primary winding and the secondary winding of a transformer, a high voltage is momentarily placed upon the secondary winding. If the secondary were, in this case, well insulated from the ground, the primary voltage would be impressed upon the interior wiring of the building supplied.

With a primary voltage of 2,300 volts, a person coming in contact with any live part of the wiring system in the building served would be subject to a 2,300-volt shock and, even if they came in contact with some insulated part of the system, a socket for instance, they would be liable to receive the full 2,300 volts, as socket insulation is not designed to withstand this pressure. The results might easily be fatal.

Grounded Secondary Will Prevent Accidents

If, however, in the case of the cross cited above, the secondary were grounded, current would flow through the transformer windings to the secondary ground. This would produce the equivalent of a short circuit on the primary, and blow the primary fuses or circuit breaker cutting off the current.



IF TRANSFORMER CROSSES AND SECONDARY IS NOT GROUNDED, FULL PRIMARY VOLTAGE FALLS ON PERSON IN CONTACT

Not only is protection afforded against a cross in the transformer itself but a high tension circuit of any kind coming in contact with a grounded secondary would probably burn itself off or clear itself before doing any harm.

The grounding of the secondary of a 110-220 volt three-wire system reduces the maximum voltage to ground. When a system of this type has all wires normally insulated from the ground an accidental ground coming on one of the outside wires will result in the other outside wire being at 220 volts potential to ground. With the neutral wire of the secondary system grounded, no part of the secondary system will have a voltage of more than 110 volts to ground.

The protection afforded by grounding secondaries is obviously beneficial both to the consumer and to the company. While it is of direct benefit to the consumer in personal protection afforded, it lessens the liability of the company.

Connect Grounded Wire to Screw Shell of Socket

The code requires the grounded wire connected to the screw shell of the socket to reduce the potential to ground of that particular part of the socket. The shell of a socket is more exposed than the center contact and a person is much more liable to make contact with this part of the socket than with the center contact.

This is particularly true when inserting a lamp. If the shell of the socket were connected to the live side of the circuit it would have, ordinarily, 110 volts to ground. When inserting a lamp, as soon as the screw of the lamp butt came in contact with the screw shell of the socket it, too, would have a voltage of 110 to ground. It is quite easy

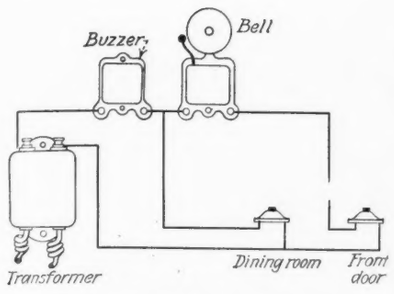


FIG. 1—DIAGRAM OF BELL AND BUZZER WIRING

to touch the butt of the lamp when inserting it.

With grounded fixtures, the shell of a brass-shell socket would generally be grounded and with a ground so close to the live shell, both shocks and fire would be much more frequent.

The code requires individual services to be grounded simply to insure a *good* ground connection on the secondary system. A water pipe usually affords the best ground connection. Water pipes are generally not available at the transformer and the ground wire at the transformer must be connected to a driven pipe or to some form of artificial ground. These grounds are frequently of quite high resistance.

Frequently also, they are made inoperative by an opening in the grounding wire. Grounds to the individual service insures a multiplicity of water pipe grounds and serve to make the secondary grounding more effective and reliable.

Wiring Bell and Buzzer, Hot Plate, Meters, Connecting Two Panels

QUESTION: No. 1. Please draw a diagram of one bell and one buzzer working off a 6-volt bell transformer. The button at the front door to work both the bell and buzzer and the button in the dining room to work only the buzzer.

No. 2. There is a company which makes a hot plate or stove with four single-plug contacts as per drawing. The instructions read to heat the right side of stove plug into two contacts on the right. To heat left side do likewise with two contacts at left. After both are hot, put plugs on two center contacts and entire stove will be heated on a smaller consumption of current. Please explain the wiring diagram of this.

No. 3. On a 3-wire system, in connecting to the meter, why is it you do not run the neutral or ground wire to the meter but only tap off a small piece of No. 14?

No. 4. On an extra large service with only a small meter how would you make a connection; and would you use a transformer?

No. 5. I have two panel boards side by side on a 3-wire set of No. 1 mains. How would you go to the second panel board after connecting to the first?

ANSWER: No. 1. See Figure 1 which shows a simple method of accomplishing the results desired. The push button at the front door operates both bell and buzzer in series. The push button in the dining room operates buzzer only. It will be necessary to have bell transformer of sufficient voltage to operate the bell and buzzer in series. For satisfactory operation it would be better

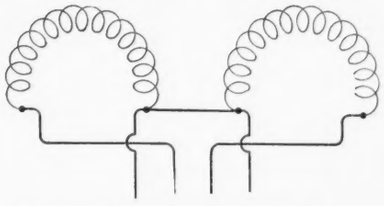


FIG. 2—CONNECTION OF HOT PLATE

to make the bell operate single stroke; or in other words, reconnect it so that the magnet coils only are in circuit. The bell will then operate from the make and break of the buzzer.

No. 2. The manner in which this stove is probably connected is shown in Figure 2. Connecting to the two right-hand contacts heats up the right hand coil, connecting to the two left-hand contacts heats the left hand coil. Connecting to the two center contacts places the two coils in series, heating both sides of the stove but with a current and corresponding heating of approximately one-half that required by either side separately. In most heaters, after the heater and whatever utensils are used are brought up to temperature, less heat is required to complete the heating operation.

No. 3. Figure 3 shows a wiring diagram of a 3-wire meter. A and B are the series coils which measure the current. *All* the current used on the load side of the meter must pass through these coils. The potential coil P is connected *across* the 110-volt mains and takes only a very small current, and a No. 14 wire is therefore, ample for this connection. The series coils represent the connection of an ammeter for measuring the current while the shunt coil represents the connection of a voltmeter.

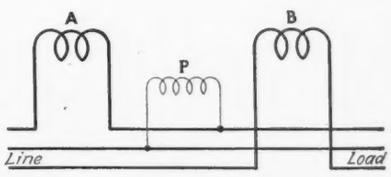


FIG. 3—WIRING DIAGRAM OF A 3-WIRE METER

No. 4. Where a small meter is connected to a large set of mains, a fuse must be placed in each ungrounded wire before it reaches the meter. See Figure 4. Transformers are not used.

Wiring Adjacent Panel Boards

No. 5. If the two panels are close together two sets of No. 6 wire can be soldered to the No. 1 mains and each set of No. 6 mains carried to a panel board. Or, if the feeds to the panels connect to lugs, a double set of lugs can be placed on the terminals of the first panel board with the No. 1 mains in one set of lugs and a set of No. 6 mains in the remaining lugs. This latter set will be extended to the second panel. If the second panel is located some distance away from the first one the No. 6 mains should be provided with fuses, one in each ungrounded wire.

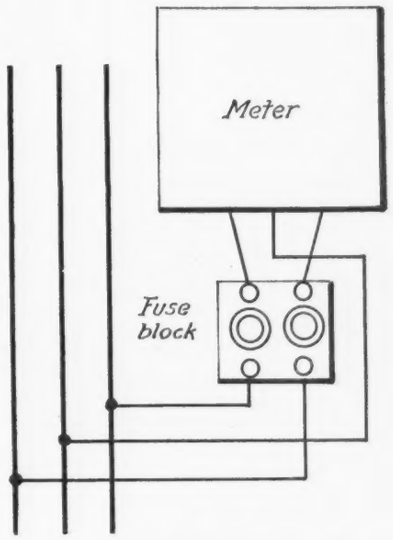


FIG. 4—SMALL METER WIRED—FUSES ON UNGROUNDED WIRES

Selling the Contracting Job

The Importance of Personal Contact—Real Estate Sales and Transfers—Service to Architects and Builders

THE man who makes a success of the electrical contracting business is not necessarily the one who makes the lowest bids and handles the greatest volume of business—that man may actually be losing money. The successful contractor, like the successful merchant, is the man who sells his commodity on the basis of something else besides the price. He merchandises his services as the electrical dealer merchandises his appliances and his profit, or lack of it, is dependent upon the methods he employs.

The Hild Electric and Manufacturing Company of Stockton, of which George W. Taylor is the chief engineer, is recognized as among the most successful contracting firms of the San Joaquin valley region of California. The reason for this is the unremitting vigilance with which it sells its services—plus, of course, the quality of service which it consistently renders.

Watches the Transfers of Property

Mr. Taylor does not believe in waiting for the customer to ask for assistance—he goes out after the job. It is all very well to watch for building permits and signs of construction in the field, but by the time these are evident, the opportunity has frequently already passed and the job is settled upon. The Hild Electric and Manufacturing Company watches rather the transfers of property in their district, studying the names of those involved in the sale and learning what the intention of the new owner is. By discreet inquiries and a personal call or two, it is thus possible to be the first man on the job.

Personal Contact Is Most Important

The most important element of all, in Mr. Taylor's opinion, is personal contact. For this reason he keeps in constant touch with architects and builders, dropping in to their offices from time to time and finding occasion to do them occasional courtesies. The equipment and services of the extensive engineering department maintained by the firm are placed at their convenience and in many cases have been utilized. Where the architect for a new commercial building is an out-of-town man, as is frequently the case, it is often possible to be of vital assistance to him in framing the initial requirements. Local ordinances and conditions are strange to him and, without guidance, he is apt to lay out a plan which does not comply with local conditions. More than one architect has been glad to make use of the facilities offered by the Hild engineering department in making up the basis upon which bids will later be asked.

This ensures that the job will be adequate and of the nature upon which the firm cares to bid. It establishes a friendly relationship with the architect as well and fixes in his mind the fact that the firm is a reliable one with every facility for handling the work.

Personal contact is also an important factor in improving the home wiring situation. The great difficulty in the way of adequate wiring and fixturing of homes is the fact that such a large proportion of this construction at the present time is in the hands of builders or architects who are concerned only with keeping down expense.

The Building and Loan movement has led to many of the homes being constructed with a fixed limit beyond which expenses cannot go. The design of the home once being laid out, and this is usually a little more elaborate than the sum allotted calls for, plumbing, fixtures and other esentials must come within the margin which is left.

Educate the Architect and Builder

The only solution to the problem is the education of the architect and builder himself—and this can only be accomplished through personal contact. Mr. Taylor tells of one such man who was finally persuaded to add fixtures to the amount of $160 to his original plan. The house subsequently sold for $350 more than he had planned to ask for it. This builder now turns over his jobs without instructions to the Hild Company, allowing them to put in what they think is necessary. Another builder will ask first how much they feel should be allowed on the house for which he has the plans and in most cases is willing to accept the estimate without question. A few examples of this sort in the community will set a standard of construction which other builders are forced to meet.

Most important of all in building up the firm's electrical contracting business is the record of service which the company holds. The man who has his business handled by this company knows that if anything goes wrong with his machinery, it can be handled expeditiously and economically. This is a matter of

Watches transfers of property, studies names involved, learns intentions of new owners

great importance in an agricultural district where the interruption of irrigation or drainage pumps at a critical period may mean loss of the crop.

The repair and service work is maintained as much for its influence in obtaining contracting work, as for its own profits. Service trucks are ready to be sent out at any hour and under all conditions. Sometimes these border on the realms of adventure. When a motor has to be brought out on improvised skids or when winter floods make it necessary to reach the trouble by means of a commandeered tug, the service department justifies its name. It is this record which is often the critical factor in deciding the award of the job to the Hild Electric and Manufacturing Company. This, of course, is backed by complete equipment in the shops which can handle all possible troubles expeditiously and efficiently.

To facilitate repair work, the record of all jobs handled is kept in convenient files. When the report of trouble comes in, it is thus possible to look up the facts of the original installation, even if it be of several years back. This saves many a second trip, or a journey over forty miles or more of country road merely to ascertain what materials should be taken out to the job. The files will furnish accurate information as to sizes and makes which the owner is often unable to supply.

Service Often Leads to Remodeling Work

Not only is the service department a factor in building up the reputation of the firm and in bringing in new jobs, but it often leads to remodeling work. "It is a difficult thing to persuade a man that his installation is obsolete," says Mr. Taylor, "when it is working satisfactorily. The time to sell a man on the remodeling of his equipment is when he is in trouble."

Such a case recently arose in connection with an important drainage project, on which repairs were needed. By rendering immediate first-aid service, the old equipment was kept going, but it was not difficult to persuade the owner that it was cheaper to put in more modern and uptodate equipment than to attempt to patch up what he had. This led to an installation which amounted to some $6,000 and which has already saved the owner from $4,000 to $5,000 during the first year it has been in use.

THE man who makes a success of the electrical contracting business is not necessarily the one who makes the lowest bids and handles the greatest volume of business—that man may actually be losing money.

The successful contractor, like the successful merchant, is the man who sells his commodity on the basis of something else than price.

Careful attention is paid to the accounts of regular customers and if these are not heard from within thirty days, it is usually found possible to drop in to see them.

Service, personal contact, and eternal vigilance, — "These," says Mr. Taylor," are the price of success in the electric contracting business."

Wiring in Localities without Electric Service

A large volume of wiring can be obtained in districts which have no electric service, by guaranteeing that service will be put in.

W. Caufield of Jamaica, L. I., worked this method very successfully in Elmont, L. I. He first went to the power company and found out how many meter applications would be required before they would put electricity in the section. On obtaining the number required he then went to the heads of the local organizations and persuaded them to sign meter applications. After receiving these signatures it was an easy matter, through their influence, to get the remaining number of applications signed.

This method not only brought power into the community but gave Mr. Caufield first chance at obtaining the wiring contracts. In one week's time he obtained contracts for the wiring of forty homes, which shows that a whole-hearted interest in the electrical industry will result in individual benefit.

Soliciting Maintenance Work

A clean income can be obtained by the contractor who will go after the maintenance work in his locality. A workable method of obtaining this work has been used by Fox & Hayward of Hempstead, L. I.

When an appliance is brought in for repairs they make the necessary adustments as soon as possible and deliver it free of charge, collecting only for the parts and labor.

This usually gives them admittance to the house where they have every opportunity to sell themselves and the service they give. They offer to inspect the wiring and where advisable they offer suggestions for alterations or corrections in the wiring system.

On this first visit, however, care is taken not to impose upon the customer any unnecessary work. This would tend to lessen the customer's confidence in them.

When opportunity presents, they leave their name, address and telephone number on the service box where it is always noticed by the customer in time of electrical trouble.

Messrs. Fox and Hayward have worked up a large maintenance business entirely by this method which is giving them a profit they cannot afford to lose.

Personal contact is an important factor in improving the home wiring situation

"Dealer Helps" the Manufacturers Offer

Show Window, Counter, Mail Advertising and Specialty Aids Offered to Help the Dealer Get More Business

Lengthening the Life of Appliances

Too many of the service calls electrical merchants receive are traced directly to ignorance or carelessness in the handling of electrical appliances. These appliances, of course, are made as foolproof as possible, but there are a number of users who do not even give them the ordinary care other non-electrical equipment receives.

Whether the lack of information on the care of appliances is but a reflection of the merchant's lack of foresight in explaining to each purchaser the pertinent points on the care of an appliance as it is sold, is not the point. The point is, does the dealer himself *see* the importance of intelligent use of appliances and seeing, will he make an effort to acquaint his customers with information governing their care?

A splendid piece of publicity material for the electrical shop could be prepared on the subject of "Care of Appliances" and distributed to customers either in the form of a letter, mailed to the home after a purchase, or in the form of a small booklet, distributed to visitors to the shop, or the same information can be conveyed by word of mouth upon completion of the sale or, better still, it provides an excuse for a visit to the home of the customer, in the interests of further sales.

Some Helpful Suggestions

Some suggestions on the care of electrical equipment have been distributed by the California Electrical Bureau and are reprinted in a recent issue of "The Emerson Monthly" of the Emerson Electric Manufacturing Company, St. Louis, Mo.

For those who may be interested in reproducing some of these hints, they are here again reprinted:

Use only soft cloths in polishing nickel surfaces.

When exposed to gas fumes nickeled surfaces will tarnish.

Appliances that are to be laid away for any length of time should be wrapped in oil paper and then in newspaper to keep the nickel surface from tarnishing.

No electrical appliances should be washed; wipe them instead, using a damp cloth first, if necessary. (In the case of toaster or waffle iron, a soft brush will be found effective).

Cords should not be detached by taking hold of the wire and pulling out the plug. Take hold of the plug itself and avoid unnecessary strain on the cord and terminals.

Kinking of cords causes their insulation to break and results in permanent failure.

When cords show signs of wear, or the connections become loose, they should be taken to an experienced dealer for repair.

All motor-driven appliances should be oiled periodically. The frequency of oiling depends, of course, upon the frequency of their use. Every electrical appliance that requires oiling has full instructions regarding the attention necessary, on a tag or in a book packed with the appliance by the manufacturer.

In addition to these few suggestions, the dealer himself, or his wife most certainly, have a few more "don'ts" and "dos" that the housewife will be glad to receive.

A distinctly new idea in display material has been offered by the Edison Lamp Works of General Electric Company, Harrison, N. J.. A set of display sleeves, six in number, and measuring about 16 in. by 26 in., has been designed to fit a metal base in which is mounted an Edison Mazda lamp. The sleeve here illustrated is one of simple design. Others of the set are somewhat more ornate, with strikingly beautiful colorings set off to particular advantage by the glowing lamp in the display base.

Air Operated Fan Window Display

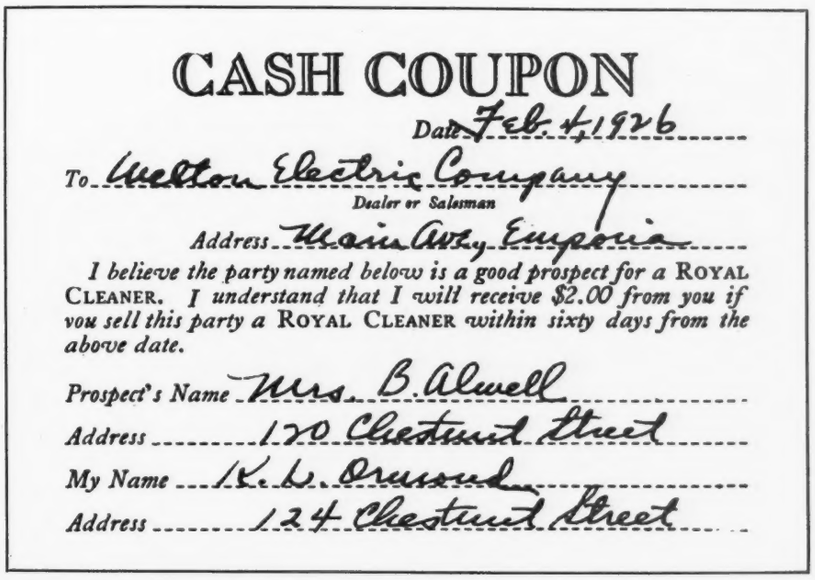
The advantage of motion, considered such an essential part of the effective window display, is secured in this fan display prepared by the Emerson Electric Manufacturing Company of St. Louis, merely by utilizing the blast of air from an Emerson oscillating fan placed in front of the card and adjusted to oscillate within a 45 to 90 angle. An arrow mounted on the card points first to one figure then the other, in perfect unison with the oscillations of the electric fan, the directional changes of whose air current cause the arrow to make its periodic changes in position.

The display is 25 in. by 37 in. in size, and is produced in eight colors by an oil paint process, the results of which not alone give permanence and brilliance to the shadings of the picture, but make it possible to clean it easily. An easel and printed instructions for its operation accompany each display, so that it is ready to set up on unwrapping.

"Get an Emerson and Forget the Heat" is the breezy message that this fan display has for a sweltering public. It will not be long now before that public will be saying, perhaps somewhat wistfully, "Where are the snows of yesteryear?" but finding an excellent substitute for cool weather in the refreshing wind from an electric fan.

Capitalizes Cleaner Customers Good Will

An effective follow-up plan for utilizing to the utmost the good will of new vacuum cleaner users for obtaining fresh prospects has been put into operation by the P. A. Geier Company of Cleveland, O. To insure the factory's receiving a complete report of every sale, the manufacturer pays the salesman or dealer extra compensation of one dollar for every such report turned in. The company next sends its standard guarantee to the customer and a sheet of four coupons, each redeemable for two dollars if a prospect designated by the customer buys a Royal vacuum cleaner within sixty days. Not alone does the manufacturer broaden by this method the channel through which his stream of prospects flows, and at but little cost per actual sale, but he reduces materially the salesman's oftentimes dispiriting work of "cold canvassing" for prospects.



CASH COUPON

Date Feb. 4, 1926

To Melton Electric Company
Dealer or Salesman

Address Main Ave., Emporia

I believe the party named below is a good prospect for a ROYAL CLEANER. *I understand that I will receive $2.00 from you if you sell this party a* ROYAL CLEANER *within sixty days from the above date.*

Prospect's Name Mrs. B. Alwell

Address 120 Chestnut Street

My Name K. L. Drusud

Address 124 Chestnut Street

The manufacturers of Royal Vacuum Cleaners expect to pay out, during 1926, over $200,000 for redeemed coupons such as the above. Four of these coupons supplied to every new Royal user may be the means of increasing enormously the number of points of contact with fresh prospects.

The Metropolitan Electric Manufacturing Company, Boulevard and Fourteenth Street, Long Island City, N. Y., is issuing a net price sheet on its products for use by electrical contractors. This sheet, it is understood, has been enthusiastically received by contractors for it saves time in estimating on jobs and it is arranged for placing on wall, under glass desk top or other convenient location.

The Chicago Fuse Manufacturing Company, Laflin and Fifteenth Streets, Chicago, has recently reissued its motor-rating card. The card is made for convenient posting in industrial plants where electric motors are used. Besides giving the full-load current, the correct ratings of starting fuses and running fuses for properly protecting different types and sizes of motors are indicated. Copies of the card will be sent on request.

The Square D Company, Detroit, Mich., has prepared a folder describing the new 40,000 series Square D switch line, designed for such infrequent installations as disconnects and entrance switches. This series is a specially designed and constructed line of equipment for use where the standard line of Square D switches would not have a close enough application.

The Ludwig Hommel Company, 929 Penn Avenue, Pittsburgh, Pa., Westinghouse jobber for electric appliances, has issued a new Encyclopedia of Radio Apparatus. This catalog, No. 466, describes, in addition to radio products, the various Westinghouse electric appliances. The Radiola, Radiola loudspeakers, Fada Neutrodyne and various radio equipment are also outlined in the publication. The catalog is so made up that the dealer can sell from it when he is out of stock.

The Hoover Company, North Canton, Ohio, has adopted a new medallion which symbolizes electricity as the modern servant and incorporates one of the company's early slogans, "The Servant to the Home," into the design. The medallion's first appearance is in the form of a transparency on the doors and windows of Hoover dealers. It will, however, shortly appear upon the product itself as well as upon the shipping cartons, says the company, and will also be the central design in the salesmen's prize medals and on display cards, plaques, etc. The design was chosen from hundreds submitted by the students in one of the country's leading schools of art and design and was the winner of a prize award of $1,000.

The Westinghouse Electric and Manufacturing Company, coincident with an announcement of the price reduction of the Westinghouse Turnover Toaster, from $8 to $6 has issued a booklet, "Quicker Toaster Turnover with the Westinghouse Turnover Toaster" in which are gathered together proofs of advertisements appearing in national magazines, proofs of ads available to dealers for use in their local papers, reproductions of window and counter cards, broadsides and folders for mailing, and a pamphlet of sales tips on how to merchandise toasters.

Suggested Ads for N. E. L. A. Co-operative Toaster Campaign

For That Bridge Luncheon—
Serve Toast Sandwiches

On your day to entertain the bridge club, don't be worried about what to have for luncheon. Get one of these electric toasters today and be prepared to serve delicious golden brown toast sandwiches to your friends. They will appreciate your originality and envy you for it.

And the electric toaster can be used on many occasions. For breakfast, lunch and dinner it will prove indispensable after you have once used it.

Now Is The Time To Get An Electric Toaster

This is electric toast month and we are making a special effort to let everybody in on the benefits of electric toast. Once you have eaten toast made on this fine electric toaster you will never feel that breakfast is complete without your toast. Stop in our store and buy this toaster today.

(INSERT LOCAL NAME AND ADDRESS HERE)

Now Is The Time
To get that electric toaster

This is electric toast month and we are making a special effort to let everybody in on the benefits of electric toast.

Once you have eaten toast made on this fine electric toaster you will never feel that breakfast is complete without your toast. Toast can be made right at the table and eaten while still warm and delicious. Golden brown toast is healthful and gives you plenty of energy to start the day right and keep going at full steam until luncheon.

Toast Is Good For Many Occasions

Not only at breakfast can this toaster be used but for the children's lunch it will be very handy. Children will have their appetites appeased at noon or after school by appetizing toast sandwiches and have surplus energy for their work or play of the afternoon.

And for that bridge luncheon or midnight supper, toast sandwiches will satisfy. The convenience and speed of this electric toaster will be appreciated on such occasions.

(INSERT LOCAL NAME AND ADDRESS HERE)

A Plan Book of suggested ads and activities for the electric toaster and percolator concurrent advertising campaigns, participated in by manufacturers, central stations and dealers, has been issued by the commercial section of the National Electric Light Association. Two suggested newspaper ads, with inserted cut of one of the co-operating manufacturer's toasters, are reproduced.

We announce a signal achievement!

The New and Greater HOOVER

Model 700

New in design, it makes possible, for the first time, the *Positive Agitation* of floor coverings.

Spectacular in efficiency, it exceeds by 146% (average, in actual test) the cleaning efficiency of any other cleaner.

Strikingly beautiful, in form and finish; refined and improved throughout.

THE HOOVER COMPANY, NORTH CANTON, OHIO
The oldest and largest maker of electric cleaners
The Hoover is also made in Canada, at Hamilton, Ontario

News of the Electrical Trade

Reports on Industrial Lighting Activity Due April 1

Three prizes of $2,500, $1,500, and $1,000, as announced in the Plan Book of the Industrial Lighting Committee, are to be given to those districts staging the most effective campaign within the prescribed period, based on the following three points: percentage of factories brought up to a higher lighting standard; value to the rest of the industry of the facts and figures included in the district report; evidence of an educational value to industrial plants, civic organizations, and business groups, arising from the activity, resulting in such economies as increased production, fewer accidents and less labor turnover.

Reports should cover the period up to March 1, and should be at the office of the Industrial Lighting Committee not later than April 1, 1926. Winners will be announced and prizes awarded at the N. E. L. A. Convention at Atlantic City in May. Judges are Earl E. Whitehorne, chairman, Contributing Editor, *Electrical Merchandising;* Dugald Jackson, professor of Electrical Engineering, Massachusetts Institute of Technology; James E. Davidson, president, National Electric Light Association; Edward W. Lloyd, chairman, commercial section, National Electric Light Association; and Merritt Lum, vice-president, A. W. Shaw Company, Chicago, Ill.

Electric Sign Manufacturers' Association Organized

Members of the Society for Electrical Development who are engaged in the electric sign business held a meeting on Jan. 23 in the rooms of the society in New York City and drew up plans for an association of electric sign manufacturers and others connected more indirectly with that industry. Some of the purposes of the association are the creation of a model ordinance to govern sign installation, to secure central station co-operation, to establish a source of information for the solving of technical problems, and to work out cost finding systems applicable to the whole industry.

Conventions Coming

AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS, *New York, February 8-12.*

NATIONAL ELECTRIC LIGHT ASSOCIATION, SOUTH-WESTERN DIVISION, *Galveston, Texas, April 13-16.*

NATIONAL ELECTRIC LIGHT ASSOCIATION, 49TH ANNUAL CONVENTION, *Atlantic City, N. J., May 17-21.*

ELECTRIC POWER CLUB, *Hot Springs, Va., May 24-27.*

ELECTRICAL SUPPLY JOBBERS' ASSOCIATION, *Hot Springs, Va., May 31-June 4.*

ASSOCIATED MANUFACTURERS OF ELECTRICAL SUPPLIES, *Hot Springs, Va., June 7-12.*

PACIFIC COAST ELECTRICAL ASSOCIATION, *Los Angeles, Cal., June 8-11.*

The Wirt Company, Germantown, Philadelphia, Pa., has made several changes in its sales organization. The New York and New England territory is in charge of the company's direct factory representative, J. B. White, with offices in New York. Henry W. Punke is representing the company in the Chicago and middle west territory. His headquarters are at 738 West Monroe Street, Chicago, Ill. Philadelphia and the Atlantic coast territory is being handled by R. L. Gilmore, with offices in Philadelphia. L. F. MacGronan, also located in Philadelphia, is handling the Pittsburg and central southern territory.

The First Alabama Electrical Exposition, under the joint auspices of the Alabama Electrical League and the Birmingham *News,* will be held at the Birmingham Municipal Auditorium the week of March 15.

The H. B. Sherman Manufacturing Company of Battle Creek, Michigan, manufacturer of brass goods, has completed an expansion program which included the erection of several new buildings, and the complete remodeling and modernizing of the plant. The increased size of the plant and its greater efficiency are expected to result in a production increase of nearly one hundred per cent.

The Benjamin Electric Manufacturing Company held a sales and advertising conference in Chicago, Feb. 4-6.

Electric-Refrigerator Manufacturers Approve Co-operative Program

A group of leading manufacturers of electrical refrigerators met at the Westchester - Biltmore Country Club, Rye, New York, January 28, 29, and 30, in the third of a series of meetings called for the purpose of considering the possibilities for co-operative activities which would benefit the industry as a whole. Representatives of the following companies attended

Copeland Products Company.
Delco-Light Company (manufacturers of Frigidaire).
General Electric Company.
Kelvinator Corporation.
Nizer Corporation.
Servel Corporation.

The educational and market-development program offered by The Society for Electrical Development was enthusiastically approved by the departmental committees and an appropriation of $100,000 was made by the executive committee. The program calls for a series of full-page advertisements in the *Saturday Evening Post* starting in May, 1926, which will be co-ordinated with the advertising of the individual companies. In these advertisements the Society will present to the public, over its own signature, the board advantages and benefits of electrical refrigeration in relation to food preservation, convenience, economy and home comfort in general. The program also calls for the production of neutral, educational literature suitable for the use of public utilities and others who are primarily interested in selling the idea of electrical refrigeration rather than a particular make of machine.

Another important feature of the plan was the appropriation of $10,000 for carrying on experiments to determine scientific facts about the preservation of food by some well-known scientist connected with one of the great universities of the country.

Local Dealer Councils to Be Formed

It will be the aim of the Council to foster a spirit of friendly co-operation, both nationally and locally. In particular, it is planned to organize local

The Automatic Electric Washer Co., Inc., of Newton, Iowa, recently closed its three-day sales convention at its factory in Newton, Iowa. About seventy-five salesmen and resale men, from all parts of the country were in attendance. The company has division offices in Portland, Oregon, Dallas, Texas, and Philadelphia. It is one of the oldest manufacturers of electric washers.

7 reasons

Why the Premier Duplex should be in *your* store

1 ***It is the most thorough cleaner made.***

You are the electrical authority of your community and should sell only the best appliances. The Premier Duplex has always come out *first* in all competitive tests.

2 ***It sells quickly—and stays sold.***

Three features sell the Premier Duplex quickly—and make it stay sold. Its *double action* thoroughness, that is strong suction and motor-driven brush—its ball bearing motor and brush which need no oiling—and its lifetime efficiency.

3 ***It needs no servicing.***

Both its motor and brush are ball bearing, packed in lubricant. In this way they are saved from breakdown, because they always have the *right* amount of lubrication. And the Premier is sturdily and simply built.

4 ***It carries a generous trade-in allowance.***

Any vacuum cleaner can be turned in for a *generous* allowance and the amount put to a new Premier Duplex. This is a big sales point.

5 ***A large national advertising campaign backs it.***

Monthly ads—black and white pages and two-color, two-page spreads—in the Saturday Evening Post. Ads in Liberty, Good Housekeeping, Ladies' Home Journal, Sunset, Woman's Home Companion and Pictorial Review. These build up the demand.

6 ***A large sales-organization to help you.***

The Premier Duplex has direct factory branches all over the country. These branches are prepared to help with men and material.

7 ***Each cleaner carries a big profit.***

Between the price you pay and the price you sell there's a big margin of profit.

WRITE OR WIRE TODAY

for details of the valuable Premier Duplex franchise.

Premier Duplex

ELECTRIC VACUUM CLEANER CO., Inc.
CLEVELAND, OHIO

Manufactured and Distributed in Canada by the Premier Vacuum Cleaner Company, Ltd., Toronto, Ontario.

councils, consisting of branch offices and distributors of electrical refrigerators, to be affiliated with the national body and with the local electrical leagues and clubs.

The Council will also promote cooperation with other associations interested in this field and will recommend the simplification and standardization of design and terminology in accordance with the recommended practices of the Department of Commerce. In general, the Council will be organized with a view to bringing to bear the influence and resources of the group for the development of the refrigeration art and business in the most effective fashion to the end that the greatest public service may be rendered.

E. G. Biechler, president of the Delco-Light Company, has been elected president of the temporary organization, with an executive committee as follows:

W. R. Wilson, president Copeland Products Company;

C. W. Stone, manager central-station department, General Electric Company;

A. H. Goss, president Kelvinator Corporation;

O. A. Glazebrooke, Jr., vice-president Nizer Corporation;

H. G. Scott, chairman of the board, Servel Corporation;

F. M. Cockrell, secretary.

The Federal Electric Company, 8700 South State Street, Chicago, Ill., initiated on February 5 a series of concerts broadcast from the Commonwealth Edison studios, and sent out over KYW, Chicago. Programs of the series, which are known as the Federal Master Artists concerts, are given every Friday evening beginning at 9:00 P. M., Central Standard Time.

New Laundryette Sales Manager

Paul K. Craig, recently made vice-president and secretary of the Laundryette Manufacturing Company, Cleveland, will also be director of sales. Mr. Craig gained a broad experience in the merchandising of electrical appliances through an activity in this field over a number of years.

The United Electric Company, Canton, Ohio, manufacturer of stationary and portable electric vacuum cleaners, has appointed Harry A. Duryea sales manager of the portable cleaner division, and has promoted Walter C. Wicker to the sales managership of the Tuec installed cleaner division.

The Wagner Electric Corporation announces the removal of its Omaha, Neb., office to 2566 Leavenworth Avenue.

L. P. Moore, widely-known contractor dealer of Wilmington, Delaware, announces that he has discontinued his contracting department and will continue in the wholesale and retail electrical supply business.

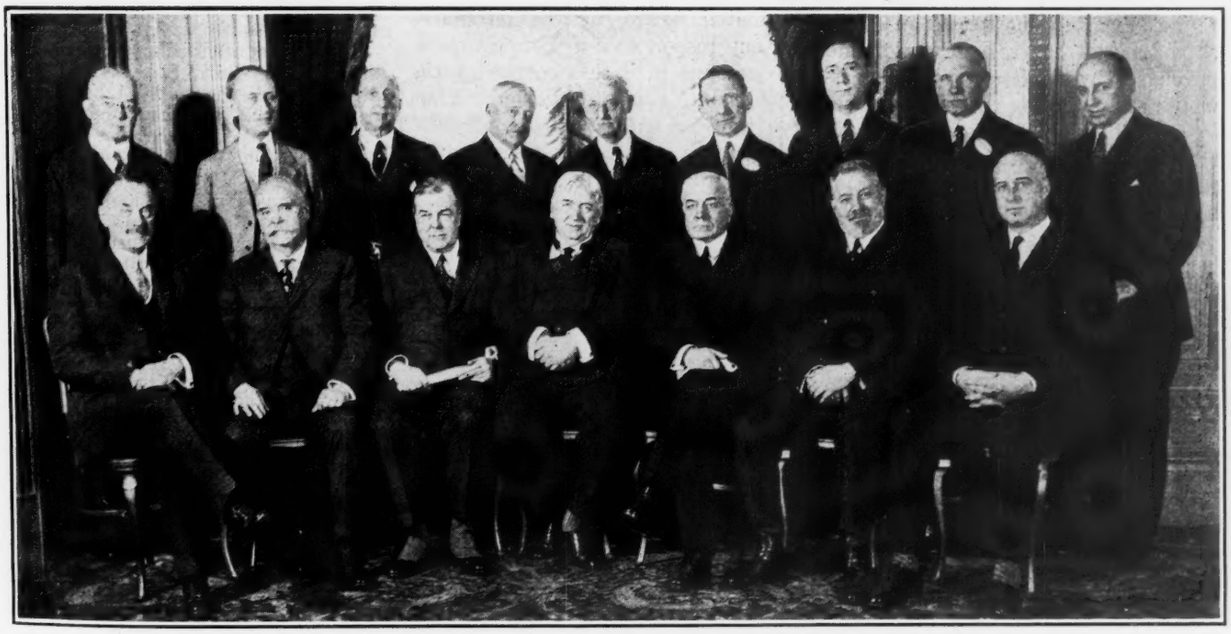
A. W. Berresford Enters Refrigeration Field

A. W. Berresford, who was vice-president and general manager of the Cutler-Hammer Manufacturing Company of Milwaukee for some twenty years, has just been appointed executive vice-president of the Nizer Corporation, Detroit.

His appointment follows closely the announcement of a consolidation of the Nizer Corporation with the Kelvinator Corporation and the Grand Rapids Cabinet Company, operating as divisions of the Electric Refrigeration Corporation. Mr. Berresford is an international authority in engineering, and has been president of both the Electrical Manufacturers' Club and the Associated Manufacturers of Electrical Supplies. Recently Mr. Berresford was elected vice-president of the American Engineering Council.

The Electric Refrigeration Corporation, Buhl Building, Detroit, Mich., has announced several recent appointments to executive positions. On February 15, J. A. Corcoran joined the organization as resale manager, A. W. Berresford as executive vice-president of Nizer Corporation, and Gordon W. Kingsbury, formerly secretary-manager of the Adcraft Club of Detroit, as advertising manager of Kelvinator Corporation. On March 1, August Jaeger joined the Leonard organization as assistant sales manager.

J. H. Bunnell & Company, 32 Park Place, New York City, manufacturers of electric fire-alarm apparatus, telegraph, radio equipment, and other electrical supplies, is now under the control of J. J. Raftery, formerly of the Western Electric Company and the Manhattan Electric Supply Company, Inc., and J. G. Dougherty, recently connected with the Illinois Steel Corporation.



Leaders of the Industry at New York League Luncheon

Rarely do so many electrical men of national prominence gather in one place at one time. The occasion was the combined luncheon of the N. Y. Electrical League and the Electrical Board of Trade of New York and the attendance was over 1,000.

Left to right, sitting: Edwin W. Herr, pres., Westinghouse Electric & Manufacturing Company; Thomas E. Murray, senior vice-president, the New York Edison Company; Charles G. Dubois, president, Western Electric Company; Arthur Williams, vice-president Commercial Relations, The New York Edison Company; George B. Cortelyou, pres., Consolidated Gas Company of New York; John W. Lieb, vice-pres. and general manager, the New York Edison Company; J. E. Davidson, pres., National Electric Light Association; standing: H. M. Edwards, vice-pres., N. Y. Edison Company; Philip Torchio, vice-pres., Electrical Engineering, the New York Edison Company; Charles L. Eidlitz, chairman, Board of Directors, Electrical Board of Trade of N. Y.; Albert L. Salt, pres. Graybar Electric Company; Frank W. Smith, vice-pres. and general manager, Western Electric Company; W. J. Drury, general manager, Western Electric Company; M. H. Aylesworth, managing director, National Electric Light Association, and Albert Goldman, Commissioner of Plant and Structures, New York City.

Buying Control

Continued from Page 6145

hand is to be *reduced* during the month, he *subtracts* the amount of the reduction from the sum of the sales and markdowns. If the stock is to be *increased*, he simply *adds* that amount.

In allotting purchasing appropriations, he does not take into account stock shortages. Theoretically they do not exist, but actually they are always present provided the accounts are accurate. Occasionally, you will have an overage instead of a shortage. This indicates an accounting error or "manipulation" of the stock prices. Neither should be tolerated. Such shortages are very properly used as a reduction of the book gross profit.

It is the stock shortages and the markdowns during the course of a season that account for the difference between the original gross margin ("initial mark-up percentage") and the end-of-season gross margin ("maintained mark-up percentage").

This is about all there is to the story of buying control, insofar as forms go. We have attempted to illustrate this text with a departmental operation, as shown on page 6144 of this issue. In many of the larger department stores it has been found advantageous to use an *interdepartmental* control of stocks and purchases, by *subdividing* the departments and applying the same system to each division. Of course this is merely carrying the departmental idea a step further, altho it has not been found practical to subdivide the daily sales. An example of this would be to subdivide a washing machine department into sections for each make carried.

Stick to It

As you read this, it may strike you as fearfully complicated. Actually, it is very simple, as you will find by working out the calculations shown in the illustrated form. Such a control system is a great aid in modern merchandising. With innumerable variations, none basic, it is used by department and chain stores generally.

Just a final word: If you decide such a system would be beneficial to your business, and install it, *stick to it*. Don't permit your enthusiasm for a particular promotion to sway you from its guidance. You understand, of course, that if the sales of a particular month fall *below* the estimated figure, or the purchases for any reason *exceed* their estimate, the amount in excess *comes off the next month's appropriation*. Thus you exercise a *thirty-day* control of your stocks and this is necessary if you are to exercise a seasonal and a yearly control. Experience proves that each month has its own problems and it is not safe to defer to a future time any necessary stock adjustment.

Samuel Adams Chase, special representative of the Westinghouse Company, has been engaged during February and early March in lecturing throughout the Southern States on "Selling the Electrical Idea to the Public." In Florida, however, Mr. Chase's topic was "Our Opportunity—New and Better Business." It is on such occasions, aided by the friendly ministrations of the weather man, that this gentleman, whose personal charm and gentle dignity would grace a United States Senator, unbends and gaily enjoys ice cream cones and hot dawgs.

New York Fixture Men Start Campaign to Increase Fixture Allowance

The New York Association of Lighting Fixture Manufacturers, at its meeting on February 3, unanimously decided that it would start a campaign expending from 15,000 to 25,000 dollars, to advise the public generally in the metropolitan district that "3 per cent of the cost of the new home is the minimum amount that should be allowed for lighting fixtures."

This campaign will be directed especially at the architect, interior decorator, speculative builder, home builder, home buyer and electrical contractor in a united effort to raise the fixture standard in the New York residences.

Graybar Makes Changes in Personnel

A number of new appointments and changes in personnel have been made by the Graybar Electric Company, formerly the supply department of the Western Electric Company. J. F. Davis, former sales manager at New York, has been transferred to the general staff of the company, with headquarters at 100 East 42nd Street, New York City. W. B. De Forest, former Kansas City distributing house manager, has been appointed sales manager of the company with headquarters in New York. R. F. Copes is now sales manager of the Norfolk, Va., branch, reporting to G. T. Marchmont, manager. E. H. Waddington is sales manager of the Kansas City distributing house, reporting to H. N. Goodel, district manager and manager since Kansas City has been made western district headquarters. George Corrao succeeds H. N. Goodel as manager of the St. Louis house. F. C. Caldwell manages the Houston, Texas, branch, reporting to R. W. Van Valkenburgh, Graybar manager at Dallas, Texas. C. V. Robinson is credit manager at Richmond, Va., succeeding F. S. de Gruchy, now with the credit department in New York City.

Where to Buy the Lamps Shown on Pages 6146-6147

George Donovan, 200 Fifth Avenue, New York City — Domestic pottery lamps with linen shades.

Carbone, Inc., 118 Fifth Avenue, New York City — Italian "Bassano Ware" lamp.

Crucet Manufacturing Company, 18 West Twenty-third Street, New York City—Marble floor and table lamps, and table clock in etched French glass.

F. W. Wakefield Brass Company, Vermillion, Ohio—Attachette.

Rindsberger Manufacturing Corp., 18 East Twenty-fourth Street, Chicago, Ill.—Rayglow Bridge lamp.

Colonial Lamp & Fixture Company, 5654 Lake Park Ave., Chicago, Ill.—Floorette, Dresden table and Boudoir lamps, wrought iron junior.

Warner Shade and Novelty Company, 18 West Eighteenth Street, New York City—Cast brass bridge lamp, ebony and gold decorated floor lamp, Italian bronze and marble table lamp, and duck jug.

Art Lamp Manufacturing Company, Chicago, Ill.—Junior with Holophone unit.

The Square D Company, Detroit, Mich., announces the appointments of several new salesmen and the promotions of others. G. E. Daub has become a member of the sales force in the Atlanta territory with headquarters at Birmingham, Ala.; Roy L. McCreary is now a salesman in the Cleveland territory with headquarters at 715 Hippodrome Building, Cleveland, Ohio; J. F. O'Hara has returned to the company as a salesman in the Detroit territory; Jack Kingsley has been appointed branch sales manager of the Springfield, Mass., territory, and C. L. Hull has been appointed eastern district sales manager with supervision over the Baltimore, Philadelphia, New York, Springfield, Boston and Syracuse territories. S. A. Rapier has been made export manager of the company, with headquarters at 30 Church Street, New York.